Benefit Analysis Guidebook

A Reference to Assist Department of Defense Acquisition Strategy Teams in Performing a Benefit Analysis before Bundling Contract Requirements

Introduction

BACKGROUND AND PURPOSE

In the mid-1990s, Congress passed several statutes requiring the government to buy products and services more efficiently. As a prudent buyer and custodian of public funds, the Department of Defense (DoD) believes it is doing just that when it combines several requirements into a single contract to save money and gain other benefits. DoD calls this practice *contract consolidation*.

A subset of contract consolidation is *contract bundling*. It occurs when requirements previously suitable for award to small business and bought under separate, smaller contracts are consolidated, resulting in a contract that is unsuitable for award[1] to a small business.[2] Congress defined *contract bundling* in the Small Business Reauthorization Act (SBRA) of 1997.[3] This law authorizes contract bundling if—and only if—it is necessary and justified. To determine whether a bundled contract is justified, the *acquisition strategy team* must perform a *benefit analysis*.

The acquisition strategy team is formed during the acquisition planning stage of the procurement. The program manager (PM), or other official responsible for the program, has the overall responsibility for acquisition planning.[4] The team should consist of "those who will be responsible for significant aspects of the acquisition, such as contracting, fiscal, legal, and technical personnel."[5] The acquisition strategy team also should include small business subject matter experts (the respective contracting activity's small business specialist and Small Business Administration (SBA) Procurement Center Representative (PCR), if available.

[1] *Unsuitable for award,* under the Small Business Act, refers to the diversity, size, or specialized nature of the elements of the performance specified; the aggregate dollar value of the anticipated award; the geographical dispersion of the contract performance sites; or any combination of these.

[2] In this guidebook, a *small business* is one that meets the definition set forth in the Small Business Act, 15 U.S.C. 632. It includes small disadvantaged businesses, woman-owned small businesses, veteran-owned small businesses, historically underutilized business zone small businesses, historically black colleges and universities, and minority institutions.

[3] Public Law 105-135.

[4] DFARS 207.103 (f).

[5] FAR 7.104.

This guidebook is a "how to" on conducting a benefit analysis. It will help readers answer three questions:

1. Will the proposed solicitation result in a bundled contract?

2. If so, what are the bundled contract's benefits to the government?

3. Are the benefits great enough to justify contract bundling?

This guidebook also provides a thorough discussion of what bundling is and is not, and describes actions that acquisition strategy teams can take to avoid or mitigate bundling's potential negative consequences on small businesses. It is a tool for striking the right balance between maximizing small business participation in DoD contracts and achieving for the government the benefits of contract consolidation.

USING THIS GUIDEBOOK

DoD acquisition strategy teams should refer to this guidebook before bundling contracts. It provides hypothetical examples illustrating when a benefit analysis must be performed, how to calculate estimated dollar savings, and when to proceed with a bundled contract. It also provides a checklist for quick reference. The checklist follows this introduction.

No guidebook can replace good judgment. When an acquisition strategy team performs a benefit analysis, the use of sound estimating techniques is essential to avoid unjustified bundling. Making sure that any benefits resulting from contract bundling are realistic and clear is no less important.

ORGANIZATION OF THIS GUIDEBOOK

This guidebook is organized into nine chapters. Chapter 1 defines contract bundling. Chapter 2 discusses strategies for avoiding or mitigating bundling. Chapter 3 provides an overview of the benefit analysis process. Chapter 4 describes analytical techniques and data sources to perform a benefit analysis. Chapters 5 through 9 include simplified examples illustrating how one would conduct a benefit analysis. Chapter 10 summarizes the salient points of the preceding nine chapters.

Consolidation or Bundling Checklist

PURPOSE

This checklist serves as a quick reference source for the members of the acquisition strategy team and others to review before issuing solicitations that bundle requirements.

☐ IS THE CONSOLIDATION A BUNDLE?

See Federal Acquisition Regulation (FAR) 2.101.

☐ IF THE CONSOLIDATION IS A BUNDLE, DID THE TEAM AVOID UNNECESSARY AND UNJUSTIFIED BUNDLING?

See FAR 7.103

☐ DID THE TEAM DOCUMENT, IN THE PLAN OF ACTION, ANY POTENTIAL IMPACT ON SMALL BUSINESSES?

See FAR 7.105

☐ BEFORE ISSUING THE SOLICITATION, DID THE TEAM CONDUCT A BENEFIT ANALYSIS?

See FAR 7.1.

☐ IF THE CONSOLIDATION IS A BUNDLE, ARE THE BENEFITS "MEASURABLY SUBSTANTIAL"?

See FAR 7.107(a) and 7.107(b).

☐ ARE REDUCTIONS IN EITHER ADMINISTRATIVE OR PERSONNEL COSTS THE BASIS FOR THE BENEFIT ANALYSIS?

See FAR 7.107(d).

☐ IF THE BENEFIT ANALYSIS DID NOT MEET THE FAR CRITERIA, IS THE PROCUREMENT MISSION CRITICAL?

See FAR 7.107(f).

☐ HAS THE SMALL BUSINESS ADMINISTRATION'S PROCUREMENT CENTER REPRESENTATIVE BEEN INVOLVED?

See FAR 10.001(c)(1) and FAR 19.202-1

☐ DID THE INCUMBENT SMALL BUSINESS(ES) RECEIVE NOTIFICATION?

See FAR 10.001(c)(2).

☐ IF A SOLICITATION THAT BUNDLES REQUIREMENTS CONTAINS SIGNIFICANT SUBCONTRACTING OPPORTUNITIES, HAVE THE SMALL BUSINESS SUBCONTRACTING PROVISIONS BEEN INCLUDED?

See FAR 15.304(c)(5) and FAR 15.304(c)(3)(iii).

Contents

TABLES

FIGURES

Chapter 1
Definitions and Approach

DEFINITIONS

Consolidation and Bundling

The terms *bundling* and *consolidation* frequently are interchanged. As used in this guidebook, a consolidation occurs whenever requirements are combined, aggregated, united, coupled, or otherwise consolidated in any manner. On the other hand, Congress has defined bundling as occurring under very specific circumstances. In effect, bundling is a subset of consolidation.

Bundling Defined

The Small Business Reauthorization Act of 1997 (SBRA) defines a bundled contract as one that

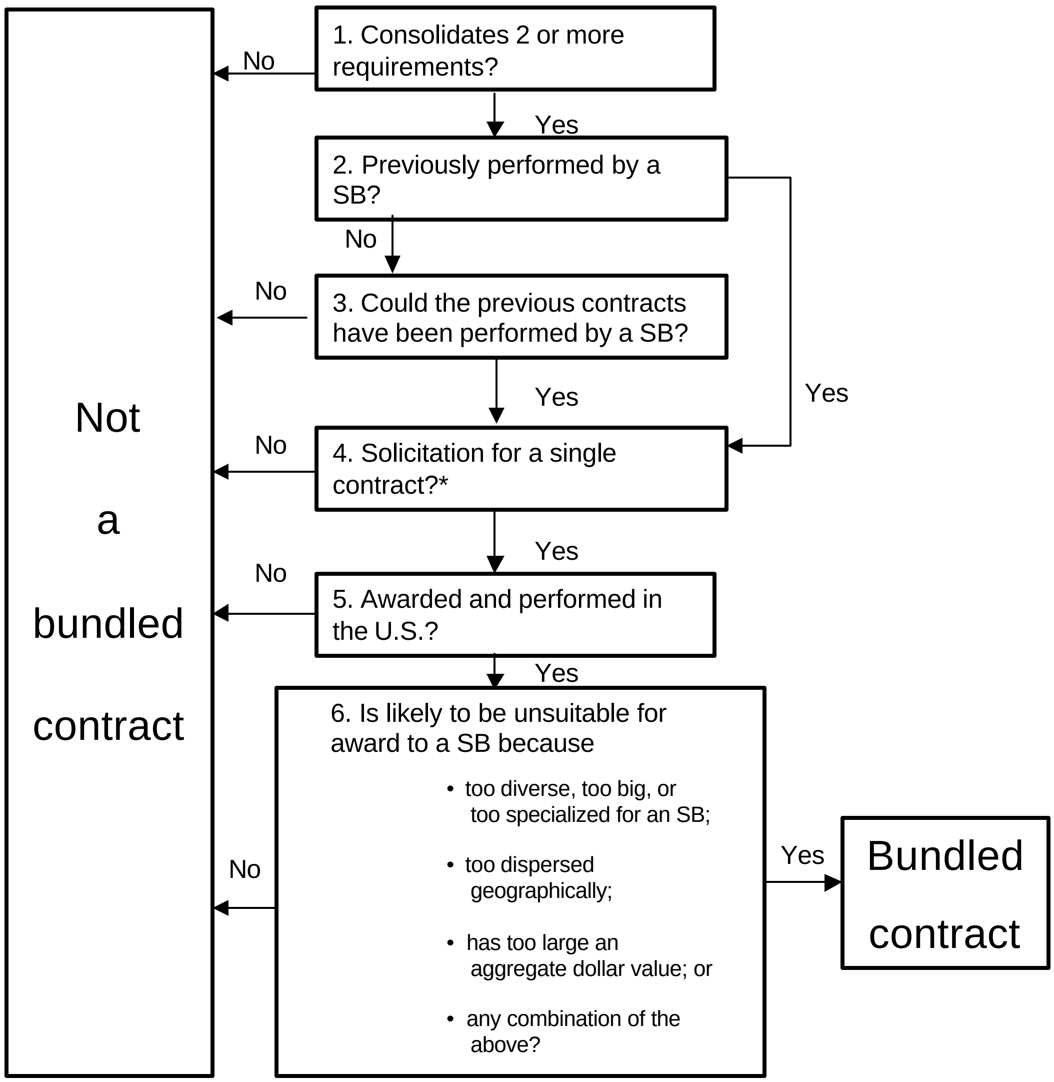
- consolidates two or more procurement requirements that previously were provided or performed under separate, smaller contracts;
- involves a previous contract that was or could have been performed by a small business;
- results in a solicitation for a single contract; and
- is likely to be unsuitable for award to a small business.

The Federal Acquisition Regulation (FAR) adds another factor to this definition. FAR 2.101 states, "This definition [bundling] does not apply to a contract that will be awarded and performed entirely outside of the United States."

CRITERIA FOR DETERMINING BUNDLING

Deciding whether a potential consolidation would result in a bundled contract is critical, because if a contract is bundled, a number of requirements apply. These requirements are covered in the subsequent chapters of this guidebook. If the acquisition strategy team determines that the consolidated contract is *not* bundled, the procurement may proceed. Figure 1-1 outlines the logic process for deciding whether a contract meets the definition of a bundled contract.

Figure 1-1. Decision Flow Chart for Determining Whether a Contract Is Bundled



Note: SB = Small business.
*The sole fact that one solicitation results in award of multiple contracts, especially indefinite-delivery, indefinite-quantity contracts, does not guarantee that the resulting consolidated contracts are not bundled contracts. For example, if an acquisition strategy team is considering issuing a solicitation for multiple-award contracts that are likely to be unsuitable for award to small business, one or more of these contracts may displace small businesses and, therefore, may be a bundled contract. Consequently, when analyzing whether to proceed with a multiple-award contract, the acquisition strategy team should evaluate each multiple-award contract scenario by using the decision flow chart in Figure 1-1 to determine whether one or more of the anticipated awards are being bundled.

When considering a prospective contract that would consolidate requirements, the acquisition strategy team needs to determine first whether the contract meets all of the criteria described in Figure 1-1. If it does, it is a bundled contract.

CRITERIA EXAMINED

First Criterion: Are Two or More Requirements Consolidated?

If requirements are consolidated from two or more previous, separate, smaller contracts, the acquisition strategy team can proceed to the second criterion. If only one requirement is involved, the proposed solicitation will not result in a bundled contract.

Second Criterion: Did a Small Business Previously Perform Any of the Requirements?

If a small business performed one of the previous separate, smaller contracts, the acquisition strategy team can proceed to the fourth criterion. To answer the second criterion, the acquisition strategy team needs to exercise its judgment to determine how far back in history to go—that is, to determine what counts as a previous contract (e.g., the immediate predecessor contract, or an earlier contract from which the current procurement can be traced directly). Once the acquisition strategy team has determined the relevant earlier procurements, it must examine them to ascertain who provided the services or products—and whether that provider was a small business.

Third Criterion: Could a Small Business Have Performed Any of the Requirements?

If a small business did not perform one of the previous separate, smaller contracts, the acquisition strategy team needs to review the procurement history to determine whether a small business *could have* performed one of the requirements. Another approach in making this determination is to perform market research to determine whether there are contractors that could provide or perform these requirements. In addition to reviewing the supply base, the acquisition strategy team may consider evaluating whether the anticipated contract is suitable for award to a small business.[1] If the procurement history or market research shows that a small business could have performed one of the previous separate, smaller contracts, the acquisition strategy team should proceed to the fourth criterion.

Fourth Criterion: Will the Solicitation Result in a Single Contract?

The fourth criterion relates to the number of contracts that will result from the solicitation—if the solicitation combines contract requirements into a single contract, then that contract could turn out to be a bundled contract, and the acquisition strategy team will have to examine the next criterion.

[1] The factors in the Sixth Criterion maybe helpful in making this determination.

However, the sole fact that one solicitation results in award of multiple contracts, especially indefinite-delivery/indefinite-quantity (ID/IQ) contracts, does not guarantee that the resulting consolidated contracts are not bundled contracts. For example, if an acquisition strategy team is considering issuing a solicitation for multiple-award contracts that are likely to be unsuitable for award to a small business, one or more of these contracts may displace small businesses and, therefore, may be a bundled contract. Consequently, when analyzing whether to proceed with a multiple-award contract, the acquisition strategy team should evaluate each multiple-award contract scenario by using the decision flow chart in Figure 1-1 to determine whether one or more of the anticipated awards are being bundled.

Fifth Criterion: Will Contract Performance Occur in the United States?

If any portion of the contract's performance will occur in the United States, the acquisition strategy team can proceed to the last criterion.

Sixth Criterion: Is the Proposed Contract Likely to Be Unsuitable for Award to a Small Business?

If the answer to this question is "yes" and the other criteria are met, the consolidation will result in a bundled contract, and the acquisition strategy team will have to perform a benefit analysis to determine whether bundling is justified—the subject of the next eight chapters.

This sixth criterion is perhaps the most difficult to analyze, because it requires the acquisition strategy team to consider a number of factors in making its determination. They are

- the diversity, size, or specialized nature of the elements of the performance specified;
- the aggregate dollar value of the anticipated award;
- the geographical dispersion of the contract performance sites; or
- any combination of the above factors.

DIVERSITY, SIZE, OR SPECIALIZED NATURE

The acquisition strategy team must determine on a case-by-case basis whether the consolidated solicitation will combine requirements that are too diverse to be within the capability or capacity of a small business. For example, a small business might be able to perform only certain base maintenance tasks, such as plumbing or carpentry. When a solicitation adds paving and electrical repairs, it might become too diverse for a small business. If the acquisition strategy team determines that the solicitation consolidates requirements that are too diverse for a small business, the proposed contract is bundled.

The acquisition strategy team also must consider whether the work required will be too large for a small business to perform. For example, if a solicitation requires the deployment of a nationwide communications network, the work might be too large for a small business to perform. If the acquisition strategy team determines that the solicitation consolidates requirements to the extent that only large businesses could perform the contract, the proposed contract is bundled.

In addition, the acquisition strategy team must determine whether the requirement will be so specialized that a small business will be unable to perform it. For example, would a solicitation that combines common requirements such as information technology (IT) services with a requirement like an in-depth expertise in foreign military sales (FMS) be too specialized for a small business to satisfy? If the acquisition strategy team determines that the consolidated requirement is too specialized for a small business, the proposed contract is bundled.

AGGREGATE DOLLAR VALUE

The acquisition strategy team must determine whether the aggregate dollar value of the requirement is too large for a small business to perform. The team may use the North American Industrial Classification (NAIC) Code[2] to determine the relevant small business size standard applicable to the requirement. The small businss specialist or SBA is available to help the team make this determination. If the team determines that the solicitation consolidates requirements such that the aggregate dollar value is too large for a small business to handle, the proposed contract is bundled.

GEOGRAPHICAL DISPERSION OF THE CONTRACT PERFORMANCE SITES

The acquisition strategy team must determine whether the requirement will be so dispersed geographically that it would be too difficult for a small business to perform. For example, would a requirement to perform nationwide maintenance of family housing facilities be too dispersed for a small business to perform? If the team determines that the solicitation consolidates requirements that are too dispersed geographically for a small business, the proposed contract is bundled.

COMBINATION OF FACTORS

Through market research, the acquisition strategy team must determine whether the solicitation would combine any of these factors to the degree that the proposed requirement would be unsuitable for award to small business. For example, would a proposed contract that requires base support services ranging from construction repair to IT help desks at a dozen activities across the country be unsuitable for award to a small business? If the team determines that the solicitation consolidates

[2] FAR 19.102.

requirements to the degree that the resulting contract would be unsuitable for small-business performance as a result of any combination of the above-described factors, the proposed contract is bundled.

DETERMINING EXISTENCE OF "MEASURABLY SUBSTANTIAL BENEFITS"

If the acquisition strategy team determines that a bundled contract will result from the solicitation, the team must perform a benefit analysis to quantify the identified benefits and explain how their impact would be measurably substantial. As mentioned previously, this guidebook is intended to assist the acquisition strategy team in conducting a benefit analysis to determine whether bundling is necessary and justified. It can be justified if the agency will derive "measurably substantial benefits that result in dollar savings."[3] These benefits may include (individually or in any combination or aggregate) "cost savings or price reduction, quality improvements that will save time or improve or enhance performance or efficiency, reduction in acquisition cycle times, better terms and conditions, and any other benefits."[4] The agency must quantify those benefits to demonstrate that their impact would be measurably substantial.

The benefits will be measurably substantial if they equal or exceed

- 10 percent of the estimated contract value (including options) if the value is $75 million or less, or
- $7.5 million if the estimated contract value (including options) exceeds $75 million and is less than or equal to $150 million, or
- 5 percent of the estimated contract value (including options) if the value exceeds $150 million.

A reduction of administrative or personnel costs alone is not sufficient justification for bundling unless the cost savings are expected to be at least 10 percent of the estimated contract value (including options).

SMALL BUSINESS ADMINISTRATION INVOLVEMENT

The FAR also imposes other requirements, including one stating that the contracting officer (CO) should consult with the SBA's PCR or the appropriate SBA Office of Government Contracting Area Office.[5] Early consultation with the SBA will

[3] FAR 7.107(a).
[4] FAR 7.107(b).
[5] FAR 10.001(c)(1).

- facilitate the acquisition strategy team's market research efforts,
- aid in the development of a more effective acquisition strategy and in the conduct of the benefit analysis, and
- minimize any adverse impact on incumbent small businesses.

In addition, FAR 19.202-1(e) requires the CO to provide a copy of the proposed acquisition package to the SBA PCR if the proposed acquisition is for a bundled requirement. The FAR addresses what must be included in that package and outlines a process to be followed should the CO reject the SBA PCR's recommendation.

Also, FAR 10.001(c)(2) requires that the agency, at least 30 days before the solicitation is released,

- must notify the incumbent small business(es) of the government's intention to bundle the requirement, and
- should inform any affected incumbent small business as to how it can contact the appropriate SBA representative.

EVALUATION FACTORS

If the solicitation will result in a bundled contract that offers a significant opportunity for subcontracting, it must state that small business participation in subcontracting will be a factor in evaluating offers for award.[6] The offerors' past performance in attaining applicable goals for small business participation under contracts that required subcontracting plans also will be an evaluation factor.[7]

SUBSTANTIAL BUNDLING

Not only can a contract be bundled, but that bundling can amount to "substantial bundling." Substantial bundling occurs when a bundled contract has an average annual value of $10 million or more. The FAR details the following requirements that must be addressed in the acquisition strategy when substantial bundling is involved:

- identify the specific benefits anticipated from the bundling,
- include an assessment of the specific impediments to small business participation,

[6] FAR 15.304(c)(5).

[7] FAR 15.304(c)(3)(iii).

- specify actions designed to maximize small business participation as contractors and subcontractors at any tier, and
- include a specific determination that the anticipated benefits of the proposed bundled contract justify its use.

EXCEPTIONS

Even when requirements are not bundled, generally it is a good business practice to perform a benefit analysis. Performing a benefit analysis can help the acquisition strategy team with the decision to consolidate or bundle contract requirements or pursue an alternate procurement strategy.

One important exception to performing a benefit analysis is for consolidations that result from outsourcing conducted in accordance with Office of Management and Budget (OMB) Circular A-76.[8] If a cost comparison analysis will be performed in accordance with OMB Circular A-76, a benefit analysis is not required. If the A-76 consolidation is bundled, the acquisition strategy team must adhere to all other regulations that pertain to bundled contracts.

Another exception pertains to "mission critical" requirements when expected benefits do not meet the thresholds. The FAR provides for this exception, stating,

> "Without power of delegation, the service acquisition executive for the military departments, the Under Secretary of Defense for Acquisition, Technology and Logistics for the defense agencies, or the Deputy Secretary or equivalent for the civilian agencies may determine that bundling is necessary and justified when (1) The expected benefits do not meet the thresholds…but are critical to the agency's mission success; and (2) The acquisition strategy provides for maximum practicable participation by small business concerns."[9]

[8] Available on-line at http://www.whitehouse.gov/omb/circulars/a076/a076.html.

[9] FAR 7.107(c).

Chapter 2
Best Practices for Avoiding and Mitigating the Impact of Bundling

INTRODUCTION

Unless it is necessary and justified, legislation and the implementing regulations discourage the bundling of contract requirements because of the negative effect it may have on small business prime contracting opportunities. This chapter discusses acquisition strategies to avoid bundling and ways to mitigate its impact on small businesses when bundling is determined to be justified.

AVOIDING UNNECESSARY BUNDLING

It is critical for acquisition strategy teams to include small business subject matter experts (the respective contracting activity's small business specialist and SBA PCR) in the front end of the acquisition planning process. Whenever possible, they should be a permanent part of the team. Planning acquisitions without their input can lead to problems that are costly to deal with and more difficult to resolve. This is particularly true for acquisitions that are likely to result in the consolidation or bundling of requirements.

The small business specialist can suggest, in the early stages of the process, acquisition strategies to avoid unnecessary and unjustified bundling. The SBA PCR is another source to consult; he or she is an integral part of the team. If a PCR is not available, the team can find information on how to contact an alternate source—the SBA Office of Government Contracting Area Office—at the SBA Web site (http://www.sba.gov/GC/).

Acquisition strategies for the team to consider include, but are not limited to, the following:

- Conduct industry forums or pre-solicitation conferences to determine small business interest and/or suggestions for potential strategies that will allow small businesses to participate as prime contractors.

- Make further inquiries into the capabilities of small businesses using the SBA's Procurement Marketing and Access Network (PRO-Net) system (http://pro-net.sba.gov/). PRO-Net is a free, Internet-based search engine that provides access to information on more than 200,000 small businesses.

- Remove obstacles to small business participation by configuring solicitations to be small business friendly. For example, if practicable, divide requirements into smaller geographic requirements or quantities, and/or adjust delivery schedules to increase the likelihood of small business participation.
- Structure solicitations to give offers from small businesses the highest rating for the evaluation factors in FAR 15.304(c)(3)(iii) regarding small business subcontracting past performance and (c)(5) regarding small business subcontracting plans.[1]
- Encourage teaming arrangements or joint ventures involving two or more small businesses.[2] For bundled requirements, the size standard is to be applied to the individual persons or concerns, not to the combined assets of the joint venture. This strategy will allow small businesses to leverage their capabilities to participate at the prime level without invalidating their status as small businesses.
- Take into account circumstances that may negatively affect the small business community. For example, the preservation of the small business base may be a significant consideration for avoiding bundling. If bundling will cause irreparable harm to the small business community, it should be avoided.

MITIGATING BUNDLING

Even if bundling can be justified by its anticipated benefits, acquisition strategy teams should strive to mitigate its impact on small businesses. Acquisition strategies that increase small business subcontracting opportunities should focus on the entire acquisition process—from the pre-award stage to post-award. That is, to maximize small business participation, the team should develop a strategy that results not only in the setting of goals, but also in tactics to ensure the achievement of these goals.

The sections that follow present acquisition strategies to mitigate bundling in the pre-award and post-award stages.

Pre-Award Strategies

- Conduct industry outreach forums (e.g., matchmakers) in conjunction with prospective (large) prime contractors to determine small business interest and/or capabilities as subcontractors.

[1] FAR 15.305(a)(5).

[2] Persons or concerns are allowed to combine together in a joint venture as defined by FAR 19.101(g) in order to obtain a government contract as long as each one individually meets the small business size standard contained in the solicitation.

- Promote the subcontracting of “high-tech” requirements by offerors to small businesses by ensuring that, when appropriate, solicitations contain a separate evaluation factor or subfactor to encourage this behavior.

- Encourage offerors to make subcontracting opportunities public in the Federal Business Opportunities (FedBizOpps), Commerce Business Daily, Subcontracting Network (SUB-Net), or other communication media. After 1 October 2001, FedBizOpps is the single source for Federal procurement opportunities over $25,000. The FedBizOpps Web site is available at http://www.fedbizopps.gov. The SUB-Net Web site (http://web.sba.gov/subnet/) provides a free forum where prime contractors post subcontracting opportunities.

- Structure full and open solicitations and evaluation criteria that encourage teaming with small businesses and aggressive small business subcontracting.

- When there is a significant opportunity for subcontracting, a full and open solicitation must include a factor to evaluate past performance, indicating the extent to which the offeror attained applicable goals for small business participation under contracts that required subcontracting plans (15 U.S.C. 637(d)(4)(G)(ii))[3] and a factor to evaluate proposed small business subcontracting participation in the subcontracting plan.[4] These factors should represent a meaningful part of the total evaluation.

- Give evaluation points and greater credit to offerors that have identified, by name, protégé firms,[5] small business teaming partners, joint ventures, or other small business subcontractors in their proposals.

- Consider establishing an award fee or other incentive that monetarily rewards contractors for meeting or exceeding goals in subcontracting plans.[6] Consider using quantitative evaluation factors, rather than qualitative factors, as criteria for assessing subcontracting plan performance. If the subcontracting performance is just one part of an award fee or other incentive arrangement, it should represent a meaningful part of the total evaluation.

- Consider incentives that might motivate prime contractors to provide substantial subcontracting opportunities to small businesses. For example, consider the exercise of an option to extend the term of the contract being contingent on the achievement of identified aggressive small business subcontracting goals.

[3] FAR 15.304(c)(3)(iii).

[4] FAR 15.304(c)(5).

[5] Refers to small businesses that are participating as protégés under DoD’s Mentor- Protégé Program.

[6] FAR 19.705-1 and 52.219-10 provide one example of an incentive arrangement.

- As part of the source selection, consider requiring offerors (large businesses) to submit previous subcontracting plans and associated Standard Forms 294/295 to demonstrate their performance in subcontracting to small businesses.

- Negotiate an aggressive subcontracting plan with the prospective prime contractor. This requires knowledge of the contractor, the industry, and the activity's small business goals. The CO should obtain information available from the cognizant contract administration office and evaluate the offeror's past performance in awarding small business subcontracts for the same or similar products or services.[7] The CO also must notify the SBA PCR of the opportunity to review the proposed subcontracting plan.[8] Additionally, establishing subcontracting goals in relation to the contract's total dollar value rather than in relation to the prime contractor's planned subcontract dollars may enhance small business subcontracting opportunities.

- When feasible, include language in the solicitation that requires the prime contractor to direct a certain percentage of each labor category to small businesses.

- Ensure that the solicitation and contract address the method for monitoring small business performance. Aside from the standard subcontract plan reporting requirements, the prime contractor should be required to address performance toward its small business goals in any planned periodic program reviews. The CO should request a subcontracting report if another organization has responsibility for monitoring subcontracting plan performance.

- Ensure that an acceptable subcontracting plan is incorporated into, and made a material part of, the contract.[9] In accordance with FAR 19.705-7, ensure that the solicitation and contract provide for the 15 U.S.C. 637(d)(4)(F) requirement regarding liquidated damages when the contractor fails to make a good-faith effort to comply with its subcontracting plan.

Post-Award Strategies

- Regularly monitor the prime contractor's subcontracting performance as provided in the contract.

- Consider having face-to-face meetings with representatives from the prime contractor and SBA. It is important to have not only the prime contractor's

[7] FAR 19.705-4(d)(1).
[8] FAR 19.705-5(a)(3).
[9] FAR 19.705-5(a)(5).

small business representative (SBR), but also a senior member of the project management organization, in attendance at each meeting.

- Consider meeting frequently (e.g., monthly) in the early stages of the contract to ensure the prime contractor gets off to a good start toward meeting subcontracting goals. Create a checklist from the subcontracting plan as a roadmap for the meetings, to monitor compliance. More dialogue—early on—will provide the prime contractor an opportunity to improve performance, if necessary, before final appraisals are given. Report progress (or lack thereof) to the contractor's senior management.
- Consider requiring a substitution letter that spells out the prime contractor's rationale for any anticipated changes from small businesses that are identified by name in the offeror's proposal.

SUMMARY

The strategies described above can be helpful to avoid bundling entirely and to mitigate the impact on small business of bundling that is necessary and justified. Acquisition strategy teams should actively involve small business subject matter experts early and throughout the acquisition process. These individuals include small business specialists, SBA PCRs, and representatives from the Office of Government Contracting Area Office. They can recommend acquisition strategies to enhance small business participation at both the prime and subcontracting levels. Strategies to avoid bundling range from conducting industry forums to determine small business interest in participating as primes, to making multiple awards with small business reservations or set-asides and encouraging teaming or joint venturing between and among small businesses.

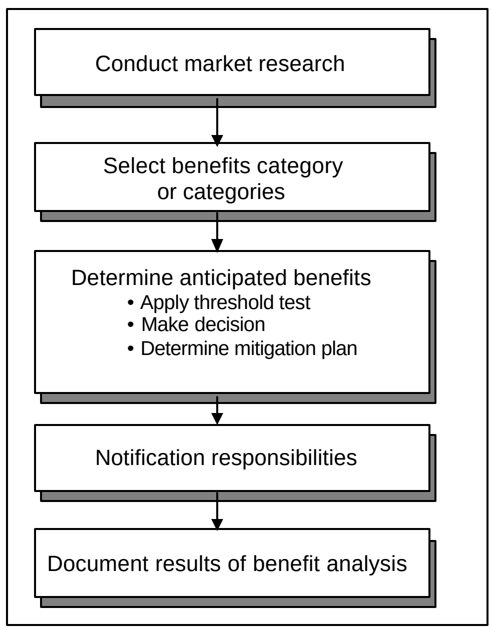
To mitigate bundling, the acquisition strategy team should develop strategies for the pre-award and post-award stages of the acquisition. In the pre-award stage, the team should place appropriate emphasis on small business subcontracting performance during the source selection, including the establishment of aggressive subcontracting goals and incentives. Also, the team should be aware that more time and attention often is given to setting subcontracting goals than monitoring the realization of these goals or enforcement of the plan requirements. To have a successful mitigation plan, monitoring the prime contractor's performance of subcontracting cannot be taken for granted. Acquisition strategy teams should implement a process (established during the pre-award stage) for ensuring the prime contractor's achievement of subcontracting goals and enforcement of any resultant subcontracting plan.

Chapter 3
Overview of the Benefit Analysis Process

INTRODUCTION

As stated previously, before it issues a solicitation for a contract that bundles requirements for products or services, the acquisition strategy team must undertake a benefit analysis. To justify any contemplated bundling, the analysis must show that "measurably substantial benefits" will result. Otherwise, the acquisition strategy team cannot proceed with the solicitation. This chapter introduces a recommended benefit analysis framework to guide acquisition strategy teams through the analysis process. Figure 3-1 illustrates this framework, which is described in greater detail in this and subsequent chapters.

Figure 3-1. Recommended Benefit Analysis Framework[1]



[1] Figure 3-1 may suggest that the acquisition strategy team conducts benefit analyses sequentially. While it can be done that way, it is not mandatory. The team will not have to conduct market research if the information available already satisfies its analytical requirements. On the other hand, the team may find that it needs to conduct additional market research because its original data were inadequate. In the final analysis, the steps in the process flow are meant solely to illustrate activities that an acquisition strategy team may or may not have to perform when it undertakes a benefit analysis.

RECOMMENDED BENEFIT ANALYSIS FRAMEWORK

The framework described in this chapter depicts the benefit analysis process as a test performed to ascertain whether a proposed bundled contract would achieve "measurably substantial benefits" for the government. If the realization of such benefits can be demonstrated, the acquisition strategy team can issue the solicitation. The depiction of this process begins with a brief discussion of market research.

Conduct Market Research

Market research is the collection and analysis of information about capabilities within a market.[2] Acquisition strategy teams perform market research as part of their daily activities. In the context of consolidating requirements, market research may be used to determine whether a contract consolidation makes sense. When exploring whether to consolidate requirements, the team should begin by assessing the benefits expected from the consolidation. Market research is one way to make this assessment. The acquisition strategy team may direct its market research toward providing information relevant to the specific case. For example, the team may perform market research to identify cost savings. If that is the case, the team may research the relevant product or service industry to become familiar with industry players, practices, and prices.

The acquisition strategy team also might employ market research techniques to delve into product quality. If, for example, the team is contemplating bundling requirements because of quality concerns, it might perform market research to identify and gather data to support a product quality assessment. In that case, the search might uncover quality measures such as warranty claims or mean time between failure (MTBF) rates. Irrespective of the situation, market research is important to the benefit analysis process because it provides data and information for use in developing the analyses of the anticipated benefits.

Categorize Anticipated Benefits

The benefit categories provide a means to present the justification that acquisition strategy teams use to express the tangible and/or intangible benefits anticipated by bundling the requirements. They include:

- Cost savings or price reductions—bundling the requirements will save the organization money.
- Quality improvement—bundling the requirements will improve the quality of the products or services (a benefit in itself, but one that must be expressed in terms of saving the organization money).

[2] Online market research tutorials are available at www.faionline.com and www.cadv.org/Courseware.htm.

- Improved terms and conditions—bundling the requirements will result in obtaining better terms and conditions, thereby saving the organization money.

- Reduced acquisition cycle time—bundling the requirements will reduce acquisition cycle time, thereby saving the organization money.

- Other benefits—bundling the requirements will benefit the organization in some fashion that does not fit into the other categories but ultimately will save the organization money.

The specifics of the situation dictate the selection of the benefit categories and whether the analysis requires the use of more than one category. Statute and regulation specify that the benefits may be treated individually or in any combination or aggregate. In other words, the acquisition strategy team can meet the "measurably substantial benefits" threshold by using only one benefit category or by combining the dollar value of the benefits from more than one category.

The fact that benefits can be either tangible or intangible may complicate the acquisition strategy team's selection of benefit categories. Tangible benefits, such as price reductions, typically are already stated in dollars or are relatively easy to convert into dollars. Benefits not readily convertible to dollars are intangible benefits. Examples include "improved service" or "improved morale." In subsequent chapters, both tangible and intangible benefits are illustrated.

In the performance of a benefit analysis, there inevitably will be some overlapping of benefit categories. For example, if an acquisition strategy team identifies a reduction in acquisition cycle time, it might classify this benefit in the quality improvement category as well, but the benefit may not be counted twice. Ultimately, what category the team chooses is not as important as having an accurate benefit analysis.

Determine Anticipated Benefits

Once the acquisition strategy team has decided that a consolidation may be justifiable and has gathered the necessary data, it can make its benefit calculations. A justification based on cost savings may depend on developing a price analysis that contrasts previous versus new prices. The analytical approach hinges largely on the specifics of the acquisition.

Documenting the method used and the supporting data is an important but easily overlooked aspect of the process. It is important to document the rationale explaining why and how the decisions affecting the analysis were made.

Data availability is a difficult issue. If a technique depends on access to data files or requires a review of old contract files, then, before undertaking an analysis, the acquisition strategy team should determine whether access issues would impede or foreclose progress. When data are unavailable, there are estimating techniques that allow the team to continue even without the data. These issues are addressed in greater detail in Chapter 4.

APPLY THRESHOLD TEST

Upon completing the analysis, the acquisition strategy team need only test to determine whether the estimated benefits meet the “measurably substantial” dollar threshold. As described previously, the team must determine on a case-by-case basis whether the benefits equal or exceed

- 10 percent of the estimated contract value (including options) if the value is $75 million or less, or
- $7.5 million if the estimated contract value (including options) exceeds $75 million and is less than or equal to $150 million, or
- 5 percent of the estimated contract value (including options) if the value exceeds $150 million.

Also, a reduction of administrative or personnel costs alone is not sufficient justification for bundling unless the cost savings are expected to be at least 10 percent of the estimated contract value (including options).

Once the value of the anticipated benefits has been calculated, that value must be compared to the appropriate threshold as determined by the estimated contract value.

Depending on the complexity of the acquisition and the strategy used to derive the dollar value of the benefits, the acquisition strategy team may reach the “measurably substantial benefits” threshold by quantifying and aggregating benefits in a single category or across several. When aggregating benefits across benefit categories, the team must not double count.

MAKE DECISION

If the results of the benefit analysis meet or exceed the threshold, the acquisition strategy team can proceed with the bundled solicitation.

If the “measurably substantial benefits” threshold has not been reached but the agency has a compelling need to issue the solicitation, it may do so with a determination in accordance with FAR 7.107(c). It must justify this action by citing agency mission criticality and ensure that the acquisition strategy provides for maximum practicable participation by small business.

Develop Mitigation Plan

If the decision to proceed results in substantial bundling (i.e., a bundled contract with an average annual value of at least $10 million), the acquisition strategy team must provide the CO with a plan to mitigate the effects of the bundling on small business. The mitigation plan in the acquisition strategy must include the following:

- Identification of the specific benefits expected as a result of bundling the contract.
- Assessment of the specific impediments to small business participation in the contract.
- An action plan to maximize participation by small businesses as contractors, including efforts that will encourage small business teaming.
- An outline of the specific steps that will be taken to ensure participation by small businesses as subcontractors.
- A specific determination that the anticipated benefits justify the decision to bundle.[3]

Notification Responsibilities[4]

Since the consolidation may adversely affect small businesses, several organizations participate in the review and approval process. The following summarizes notification responsibilities:

- The acquisition strategy team should notify its small business specialist.
- The team also must inform the SBA PCR, or if that individual is unavailable, the Office of Government Contracting Area Office.
- In addition, the team must notify any incumbent small businesses that will be adversely affected by the bundling of the requirements.

Document Results of Benefit Analysis

The SBRA of 1997 calls for the capture of data regarding the bundling of contract requirements when the CO anticipates that the resulting contract price, including options, is expected to exceed $5,000,000. The SBRA of 2000 established a database requirement. The SBA has been tasked with establishing and maintaining the database on contracts that are bundled. Therefore, acquisition strategy teams need to document the results of their benefit analysis.

---

[3] See FAR 7.107(e).

[4] FAR 10.001(c)(2) and 19.202-1(e) provide notification requirements.

SUMMARY

This chapter has described a generic benefit analysis process. Before issuing a solicitation that bundles requirements, the acquisition strategy team must determine that the consolidation will result in “measurably substantial benefits.” Undertaking the benefit analysis requires the team to

- determine whether it can justify the consolidation, using at least one of the benefit categories;
- conduct the analysis; and
- make a determination.

The final bundling decision depends on the results of the analysis. Subsequent chapters provide examples to illustrate this process in greater detail.

Chapter 4
Techniques and Data Gathering

INTRODUCTION

This chapter describes two basic techniques for quantifying anticipated benefits that may justify the bundling of contract requirements. It also identifies possible data sources that can be useful in helping the acquisition strategy team estimate anticipated benefits.

Price and cost analyses are the basic techniques for estimating the potential benefits from a proposed bundling. To perform a benefit analysis, the acquisition strategy team may use either or both of these techniques. Which technique is most appropriate for a particular situation depends on several factors, such as the type of benefit, the product or service, the availability of data, and the structure of the proposed contract. There is no single *preferred* or *best* technique. The choice will ultimately depend on the team's judgment. The following is an overview of price and cost analysis.[1]

PRICE ANALYSIS

Price analysis is a technique in which estimates are prepared and comparisons are made having reference only to the final price(s) of the products or services involved. This means that the composition of the various costs and profit factors that are the components of those prices is not used in the analysis. The prices are either

- the total final prices for a collection of products or services (e.g., final prices for engine spare parts or janitorial services), or
- unit prices for individual products or services (e.g., final prices for desktop computers or long-distance service priced on a per-minute basis).

Catalog Prices

Because the acquisition strategy team must perform a benefit analysis before proceeding with a bundled contract, it will have to develop pricing estimates through market research rather than receiving formal quotations from prospective suppliers. Frequently, such information is available from catalogs or other published

[1] See the *Armed Services Pricing Manual*, Department of Defense, 1986, Volume 1: Contract Pricing, Chapters 2 and 3, for a detailed discussion of price and cost analysis.

pricing documents. Catalog pricing provides the acquisition strategy team with a base or reference for performing a price analysis.

When Is It Done?

Price analysis is possible as long as the comparison is "apples to apples." For example, wireless services within a given geographic area generally are priced on a per-minute basis. A price analysis can be performed using these prices by comparing like services on a per-minute basis (excluding additional features and ancillary fees). A price analysis also can be performed when fixed fees are charged; for example, for a standard medical service (e.g., chest x-ray or employment physical) or for landscaping services priced on a per-acre basis.

Caveats

The acquisition strategy team must be careful when relying solely on catalogs or other published pricing documents. Their prices tend to be retail prices, which few government customers pay—because government agencies typically purchase large volumes of products or services. Thus, when performing a price analysis, the team should consider whether "most favored customer" pricing would provide deeper discounts.

Because of market fluctuations in the prices of some products and services, a comparison with established catalog prices may not always be possible. For example, the price for some integrated circuits may fluctuate over a short interval. Manufacturers and distributors of integrated circuits will not publish catalog prices for these items because changes occur too rapidly. But if the acquisition strategy team can establish a price range (through trade journals or other sources) within which manufacturers make sales to the public, that range is acceptable as a basis for comparison.

When the scale and scope of the potential bundled contract exceed the range for which published pricing information is readily available, there are several alternatives for acquiring this information. It may be possible to request rough order of magnitude (ROM) pricing from prospective suppliers. Another approach is to identify similar contracts for the same quantity of products or range of services and use that pricing information to estimate benefits.

When it makes sense to do so, and the method yields good data, using price analysis is always preferable to using cost analysis, because it is simpler and faster and tends to be more objective. However, if judgment reveals that a price analysis is not feasible, then it may be necessary to perform a cost analysis.

COST ANALYSIS

Cost analysis is the process of performing projections and evaluations based upon the composition of the costs of a good or service. Whereas price analysis does not inquire into or rely upon the composition of the costs and profit that are the components of the prices, cost analysis focuses directly on them. Thus cost analysis is a more complex—and in some ways more difficult—technique to use.

Cost analysis should be used only when price analysis is impractical. It is generally done when there is a need to assess nonstandard products and services that are not readily available in the marketplace. Cost analysis may be the only means available for estimating benefits. For example, if a proposed bundling will significantly reduce in-house stocks of a nonstandard product, the acquisition strategy team may use cost analysis to estimate the savings to be gained from reductions in warehouse space.

ESTIMATION TECHNIQUES

Whether the acquisition strategy team uses price or cost analysis to estimate the potential benefits from a proposed bundling, it may need to estimate the cost, price, or quantity of some resource. The next several sections briefly discuss techniques that support these efforts.

Pricing Resources

During a benefit analysis, the acquisition strategy team may need to estimate the cost or price of a resource (e.g., labor hours, material and supply costs, or equipment and overhead costs) as part of its analysis. Usually this effort requires the team to develop an estimate of the use of the resource and then convert it to dollars. For example, if the resources being estimated are various types of labor, the team could refer to prices for those skills published in General Services Administration (GSA) schedules or similar labor-category price lists from the Department of Labor. Using the published hourly rates for various labor categories allows the team to work directly at the price level when developing an estimate, rather than having to build up prices from base labor hourly rates and then adding indirect expenses and profit to arrive at final prices. Using published resource prices also has the advantage of showing the real market value of those resources as opposed to synthesizing final prices from the build-up of base labor rates and adding appropriate burden and profit factors from disparate sources.

Reasoning from Analogous Situations

To the extent that the proposed bundling is similar to consolidations already undertaken by other government agencies, the acquisition strategy team may be able to estimate benefits by analogy rather than by direct price or cost analysis. Even though the scope or scale of that analogous situation may not be identical with the one being proposed in the present situation, it may provide a compelling case study and basis for estimating the extent of possible benefits. The team likely will have to adjust the scope or scale of the benefits claimed in similar situations to make them more applicable to the present benefit analysis.

Parametric Estimation

Occasionally, a benefit analysis requires the acquisition strategy team to estimate something that has not been estimated previously. In those cases, parametric estimating techniques may help the team develop an approximation of the cost or price of the new, contemplated item from its constituent parts. Parametric estimating uses historic relationships between the technical, programmatic, and cost characteristics of a product or service and its price to develop estimates for the new product or service being acquired. The *Parametric Estimating Handbook* clearly illustrates this technique when it states that

> …detailed cost estimates for manufacturing and test of a hardware assembly can be developed using very precise Industrial Engineering standards and analysis. Performed in this manner, the cost estimating process is laborious and time consuming. However, if history has demonstrated that the test has normally been valued at about 25 percent of the manufacturing cost, then a detailed test estimate is not necessary. The test can simply be valued at 25 percent.[2]

Caveats

The acquisition strategy team should carefully evaluate any economic factors affecting the estimated benefits. For example, it should consider price trends (up or down) caused by market or economic conditions that may affect benefit projections. The team must avoid double counting, which can occur when the same cost is included in two areas. Another caution when estimating cost is the problem of the omission of costs. This occurs when applicable costs are simply overlooked or hidden because of errors made in identifying cost elements. Either of these problems can result in a faulty cost estimate and may call into question the credibility of the benefit analysis.

Netting and Discounting

In principle, costs attributable to the consolidation are deducted from benefits, and the resulting net benefits are used to meet the threshold tests. In all likelihood, however, most costs associated with the consolidation involve government personnel performing evaluations during the benefit analysis, and these personnel costs would be incurred even if the benefit analysis were not performed; hence,

[2] See the Parametric Estimating Initiative *Parametric Estimating Handbook* at http://www.ispa-cost.org/PEIWeb/newbook.htm for a detailed discussion on how to apply parametric estimating techniques.

they should not be deducted. On the other hand, costs that would not be incurred but for the decision to bundle the requirements should be deducted. Some of these costs might include contract termination costs and costs of personnel hired or retained to conduct the benefit analysis.

Discounting is a technique used for converting various cash flows occurring over time to equivalent amounts at a common point in time for comparison.

If a bundled contract has a one-year period of performance, discounting will not be necessary. When a bundled contract includes option years, the acquisition strategy team should sum the annual benefits and annual contract award amounts, including the option years. Then, a ratio of these totals can be calculated to determine whether the estimated benefits meet the appropriate bundling threshold. However, in the event of uneven annual contract award amounts, it is more proper to discount the annual streams using the government's discount rate. The threshold ratio or percentage would then be calculated as the ratio of the present value of benefits to the present value of contract values. The discount rate is published in OMB Circular A-94, Appendix C (available online at http://www.whitehouse.gov/omb/circulars/a094/a094.html).

GOVERNMENT DATA SOURCES FOR ESTIMATING BENEFITS

A good starting point for obtaining data required to perform a benefit analysis is the organization's comptroller (or resource management) team. The comptroller's team may save the acquisition strategy team not only time, but also the expense of researching data such as an activity's overhead and personnel costs.

For requirements that are unique to the government, or where special pricing such as a supply schedule has been arranged for government purchases, the acquisition strategy team will need to conduct market research of the federal marketplace. The sections below describe the major sources of data on pricing, terms and conditions, acquisition cycle time, and quality and performance metrics for products and services previously acquired by the government or now available in the Federal marketplace.

Form DD-350 and Federal Procurement Data System

The Contract Actions Data Reporting System, or DD-350 system, records all direct contract actions over $25,000 made between DoD and private contractors for providing products and services to DoD. The comparable system for the Federal Government at large is the Federal Procurement Data System (FPDS). The latter includes, as a major subset, the DoD system. For each contract action, these systems report the buying office, the supplier, the value of the contract action, and the type of good or service provided (by Federal Supply Group). Thus, if access is available, it is possible to search these systems electronically to identify prior

DoD or governmentwide experience in acquiring products or services comparable to those being contemplated by the bundled requirement.

These databases are not sufficient in themselves to give the acquisition strategy team the details of the various benefits to be expected from consolidating the requirements. These systems capture the total dollar value of the reported action, the buying office, the performing supplier, and the contract number. The analyst can inquire back to the buying organization to see whether its record of the action contains information relevant to the results that can be expected from the consolidation.

It is recommended that the FPDS be used if possible, because it contains more cases that are potentially useful than DoD's DD-350 system does. However, the DD-350 can be useful as well. The following example shows how the DD-350 could be used to develop information relevant to the benefit analysis.

- A major command is considering consolidating the repair and maintenance of its information technology equipment and supplies to reduce costs and improve the quality of user support. The resulting contract will be large, exceeding $15 million in value annually. A sort through the DD-350 system for awards for similar activity (service code 5070, maintenance and repair of ADP equipment and supplies) reveals 14 actions in excess of $15 million in Fiscal Year (FY) 2000. Fourteen distinct contractors performed the contracts. The data available from the DD-350 records identify each contractor, the location of the contractor's organization performing the service, and the point of contact. Additionally, the record indicates the purchase office and its location. Details about the transaction include value, contract type, and the kind of action (e.g., modification or order under ID/IQ).

- By way of example, the largest award in FY 2000 for maintenance and repair of ADP equipment was to IBM in Bethesda, Maryland, by the Defense Information Systems Agency, National Capital Region, for a firm fixed price of $124 million. The smallest award in the range was to NCI Information Systems, Inc., McLean, Virginia, by the Defense Logistics Agency (DLA), Administrative Support Center, Fort Belvoir, Virginia, for a firm fixed price of $15 million.

Federal Supply and Other Schedules

Another excellent source of data on prices, terms and conditions, acquisition leadtimes, and other matters relevant to determining benefits are the various supply schedules available from GSA, DoD, and other Federal agencies. These schedules generally are arranged by Federal Supply Category. For each category, suppliers that are qualified as sources and have been awarded contracts are listed. In most cases, supplier catalogs are linked to the schedule to allow searches for price lists, delivery schedules, and other terms and conditions. In particular, pricing information showing quantity discounts, delivery times, and special terms and conditions will help the acquisition strategy team determine benefits likely to be derived from the proposed consolidation.

In addition to schedules for hard-good items, which are arranged by commodity category, there are numerous schedules for services. Examples include schedules for professional services such as engineering, logistics support, and energy management. Because of the nature of services, price information usually is stated in terms of labor categories. Each supplier quotes hourly rates for labor categories that the supplier has defined. This information helps the analyst estimate the cost that the government will incur for the labor utilized on a service contract and the overall cost to the government for the service, based on all of the labor content required to perform it. The acquisition strategy team will need estimates from in-house technical experts as to the labor content and intensity of utilization required to perform the service.

The GSA Web site (www.gsa.gov) contains information on how to acquire many of the items that GSA is responsible for providing to government buyers. GSA's Advantage (www.gsaadvantage.gov) lists about 50 schedules, ranging from hard products like automobile parts to services such as environmental advisory services. Each schedule lists suppliers, many of which have their bulletins linked to the GSA site.

Schedules have the added advantage of enabling the acquisition strategy team to identify suppliers that possibly could satisfy the consolidated requirement. Included are small business schedule holders that might be unknown to the buying organization but might well be capable of handling the consolidated requirement, thus making it possible to avoid having the consolidation result in a bundled contract.

Federal Business Opportunities

Publishing a report for information on the Federal Web site that serves as the single source of government procurement information—FedBizOpps—(www.fedbizopps.gov) can prove an excellent source of market research data. FedBizOpps has been designated as the single source for Federal Government procurement opportunities that exceed $25,000, per section 850 of the National Defense Authorization Act for FY 1998 and section 810 of the Floyd D. Spence National Defense Authorization Act for FY 2001. Section 850 authorizes the Office of Federal Procurement Policy to designate the single point of universal electronic public access to governmentwide procurement opportunities. Section 810 allows agencies to post solicitations via the FedBizOpps single point of entry.

E-Mall

The DLA Electronic Commerce Mall (E-Mall) is a specialized Web site that provides pricing and related data and also enables ordering by government buyers. E-Mall integrates multiple catalogs into a single site covering parts and supplies, information technology, and training services. Available suppliers have ID/IQ contracts in place with DoD that are integrated with a search engine and ordering systems. E-Mall is developing a capability to identify suppliers that can satisfy unique requirements. E-Mall is located at http://www.emall.dla.mil/.

OMB Circular A-76

It may be necessary in a number of instances to calculate consolidation savings arising because some personnel resources are no longer required for performing certain administrative or operational functions. OMB Circular A-76 can be instrumental for these calculations. Usually the reduced level of effort can be estimated by obtaining the salaries (i.e., grade levels) of the personnel performing the function(s). To obtain full costs, hourly rates must be computed to reflect not only salaries but also fringe benefits and related overhead costs. Guidance on the rates can be found in OMB Circular A-76, Supplemental Handbook, Part II—Preparing the Cost Comparison Estimates. Fringe rates are at "Developing the Cost of Government Performance, B. Personnel-Line 1, 6f Fringe Benefits." The Circular is available on-line at http://www.whitehouse.gov/omb/circulars/a076/a076.html.

Parametric Estimating Handbook

The second edition of the *Parametric Estimating Handbook* is a comprehensive guide for government acquisition professionals who prepare, evaluate (i.e., perform technical evaluations and/or contract audits), or negotiate proposals by using parametric estimating techniques. The *Handbook* also is an excellent source for understanding how to apply these techniques to various categories of products and services when performing a benefit analysis. The *Handbook* is available on-line at http://www.ispa-cost.org/PEIWeb/newbook.htm.

Armed Services Pricing Manual

DoD's *Armed Services Pricing Manual* (published in 1986 and available on-line at http://198.17.75.65/fril/1996/19960620/96-14521.htm) is designed to provide guidance for DoD personnel engaged in analyzing and negotiating contract prices. The information in this manual is based on the policies and procedures of the FAR and the DoD FAR Supplement.

PRIVATE-SECTOR SOURCES OF INFORMATION[3]

The acquisition strategy team likely will make substantial use of private-sector data sources to quantify the expected benefits of a potential consolidation. In many instances, program and technical personnel familiar with sector/industry resources can help identify pricing and related data required for estimating benefits. Program personnel often attend industry conferences, subscribe to specialized trade publications, and generally stay in touch with developments in their sectors of interest.

In addition to sources suggested by program and technical personnel, a number of sources are available on the Internet. This capability expands daily in terms of both the information available and the ease with which required information can be searched for and located.

A key objective is to identify supplier catalogs that provide prices, delivery schedules, terms and conditions, and quality attributes. The market research effort is highly efficient because of the availability of such data on-line. To locate supplier catalogs on-line, the acquisition strategy team can use generally available search engines such as AltaVista, Excite, Google, Infoseek, and Lycos. Besides such standard searches, there are a number of business-to-business (B2B) and electronic commerce (e-commerce) sites that can provide data useful for estimating the benefits of potential consolidations. Many sites include offers to sell, and much of the information associated with those offers can help estimate benefits. The sections below identify some of the well-known B2B sites. B2B and e-commerce are growing very quickly, and the number of relevant sites and their listings and capabilities are expected to expand rapidly.

Cordiem

Airlines and aerospace manufacturers have united to form Cordiem, which offers coverage and capabilities similar to those found at Exostar (below). The site was created to offer buyers electronic access to aerospace manufacturers and service providers. The site is relatively new, and its capabilities are evolving. It is located at www.cordiem.com.

Covisint (Automobile)

Covisint is a recently announced site sponsored by the major automotive companies to serve their procurement, development, and supply chain management needs. Automotive supplies and components are listed and available for purchase.

---

[3] Disclaimer: These Internet sites are provided for the readers' convenience only. They are by no means the only sites available. Furthermore, their identification in this guidebook does not constitute an endorsement.

This industry-wide site will replace individual sites currently operated by the major automobile companies. The site can be found at www.covisint.com.

E-Steel

Operated on behalf of metal buyers and suppliers, E-Steel is a site where buyers can post requirements and suppliers can post offerings and respond to buyer requests. A feature of the system enables the offering of prices and availability depending on quantities and other terms. E-Steel can be found at www.e-steel.com.

Exostar

Four aerospace industry companies—Boeing, Lockheed Martin, Raytheon, and BAE Systems—plan to establish an aerospace and Defense exchange. Preliminary plans call for the site to have at least two components, one for product development and the other for procurement. The procurement component, at least initially, will link only direct suppliers to the four buying companies. All four companies must approve each participating supplier. For procurement purposes, Exostar will be used to post requirements, submit and receive offers (possibly including reverse auctions), issue purchase orders, and process invoices and payments. The companies have invited DoD participation. The exchange is available at www.exostar.com.

FreeMarkets

FreeMarkets offers a full range of procurement assistance, including helping buyers to identify qualified suppliers, developing procurement specifications, streamlining procurement operations, and holding reverse auctions. This site covers industrial parts, raw materials, commodities, and services. FreeMarkets is located at www.freemarkets.com and is available on a subscription basis.

Grainger

Grainger is a distributor of maintenance, repair, and operating supplies, services, and information. Grainger operates an electronic catalog and ordering capability at www.grainger.com. Grainger and GSA have negotiated special terms and conditions that can be used by all Federal buyers, including discounts on various products. The site also offers a listing of items that meet the requirements of the Javits-Wagner-O'Day (JWOD) Act[4] (discussed on page 4-11).

Haystack/Catalog Xpress

Haystack is a product from IHS Engineering that provides comprehensive technical information on more than 18 million parts and products in the Federal Supply

[4] The Javits-Wagner-O'Day Act is published online at http://www.jwod.gov/jwod/library/JWOD_Act.html.

Catalog and related databases. In addition, IHS offers a full-text search capability covering more than 3 million catalog pages and nearly 400,000 manufacturers. This capability is called Catalog Xpress. Visitors to the site can search catalogs by keyword, part number, model number, trade name, industry standard, or military specification, and can locate distributors and link directly to the manufacturers' Web sites. Haystack and CatalogXpress can be found at www.ihsengineering.com.

Instill

Instill operates a Web site at www.instill.com to link buyers and sellers in the food service industry.

Javits-Wagner-O'Day

The JWOD Act favors purchasing products and services provided by blind and disabled workers through the JWOD program. The JWOD Web site (http://www.jwod.gov/) offers information on how to buy these products and services, and offers searchable product and service lists.

PartsBase

PartsBase is a marketplace for aircraft parts. Sellers post their parts inventories, including part number, description, condition code, and on-hand stock list. Some national stock numbers (NSNs) also are listed. Prospective buyers search by part number and can direct requests for quotations (RFQs) to sellers that they identify as potentially having the right part. The site includes government part procurement histories.

PartsBase also operates an affiliated service called XchangeBase that provides auctions, reverse auctions, and trade capability. PartsBase and information on its affiliated sites are located at www.partsbase.com.

Spec2000

The Airline Transportation Association of America created a Web site to support the buying and selling of aircraft parts and repair services. This site is the industry's official industry standard e-commerce site. Suppliers list products and services offered, including prices, lead-times, and specifications. Buyers and sellers can exchange RFQs, quotations, purchase orders, invoices, and shipping notices. The site is open to many types of buyers, including airlines, manufacturers, distribution brokers, and repair organizations. It is located at www.Spec2000.com. (Other related sites are AirNewCo and AeroExchange.)

Chapter 5

Benefit Analysis—Cost Savings

INTRODUCTION

This chapter describes how to estimate benefits arising from cost savings, which result from *price reductions, administrative cost reductions, cost avoidance, and personnel cost reductions*. Successful cost savings will not compromise quality or result in higher cost for other factors such as freight, distribution, inventory, service, or warranties.

This chapter offers five examples to illustrate benefit analyses based on cost savings. Each example begins with a description of the factors that give rise to bundling—the current environment. The example also describes the market research that the acquisition strategy team might conduct, and it identifies any anticipated benefits. Next, the example illustrates the benefits calculations and threshold test that would be done. The first example below is based on price reduction.

EXAMPLE 1: PRICE REDUCTION—SERVICES

A price reduction is the most basic type of cost savings. It occurs when the government realizes a lower price for products or services. Price reductions originate from suppliers and are external savings to the government. Typically they result from competition, but in the case of contract consolidation, they may arise from economies of scale, the application of improved technologies, management efficiencies, and other factors.

The following hypothetical example of a benefit analysis demonstrates how to forecast price reductions based on market research and simple estimating techniques.

Current Environment

In the current environment, the acquisition strategy team plans to issue a solicitation for a wide range of engineering support services to be provided to its eastern region locations. The team envisions this procurement as part of an overall effort to realign support services throughout the region to reduce costs to the agency through increased efficiencies.

The ten locations in the eastern region currently receive engineering support services from five small and two large businesses. Contract history reveals the agency paid $83 million annually for these services. This procurement will consolidate contractor-provided engineering services into a single contract. The scope of these services falls into the following twelve functional areas:

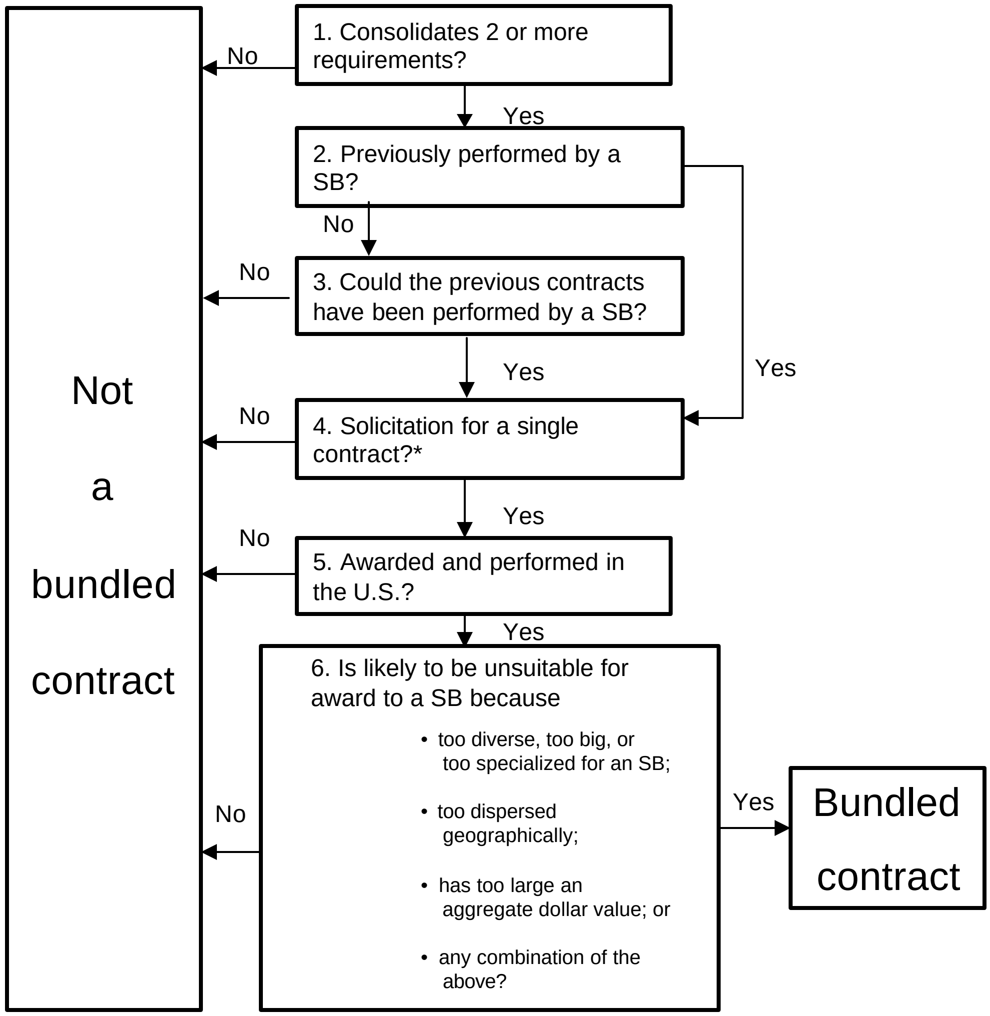
1. Desktop computing (personal computers, scientific workstations, peripherals, etc.)
2. General support (file, Internet, database, and special use servers; minicomputers; etc.)
3. Training (hardware and software)
4. Installation, operation, and maintenance of desktop computing systems (hardware and software)
5. Technology upgrades
6. Network (local area, wide area, and metropolitan) operations and maintenance
7. Computer center operations
8. Application software development and maintenance
9. Help desk operation
10. Telecommunications (voice, video, and data)
11. Data collection and analysis
12. Unclassified computer security

Currently each location purchases these services from one or more of the seven contractors on a firm-fixed-price basis. Driven by the need to streamline agency operations, the acquisition strategy team concludes that consolidating requirements with a single source will reduce costs to the agency.

The term of the anticipated contract, including options, will be five years. A firm fixed price is expected for most of the effort, with the ability to issue fixed-rate task orders as appropriate.

Realizing that the solicitation is likely to displace small businesses, the acquisition strategy team uses the decision flow chart displayed in Figure 5-1 to ascertain whether the proposed consolidation will result in a bundled contract. If the prospective contract meets all of the criteria in the chart, it is a bundled contract.

Figure 5-1. Decision Flow Chart for Determining Whether a Contract Is Bundled



Note: SB = Small business.
*The sole fact that one solicitation results in award of multiple contracts, especially ID/IQ contracts, does not guarantee that the resulting consolidated contracts are not bundled contracts. For example, if an acquisition strategy team is considering issuing a solicitation for multiple-award contracts that are likely to be unsuitable for award to small business, one or more of these contracts may displace small businesses and, therefore, may be a bundled contract. Consequently, when analyzing whether to proceed with a multiple-award contract, the acquisition strategy team should evaluate each multiple-award contract scenario by using the decision flow chart above to determine whether one or more of the anticipated awards are being bundled.

The team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, currently the agency buys engineering support services from separate, smaller contracts for multiple locations.
- Did a small business previously provide or perform this requirement? Yes, five small businesses have contracts to sell engineering support services to the agency.

- Does the acquisition strategy team activity intend to award one contract? Yes, it will award a single contract.
- Will the contract performance occur domestically? Yes, the contract performance will occur in the United States.
- Will the contract be unsuitable for a small business? Yes. Because the agency's entire requirement for engineering support services will be procured under a single contract, the diversity of the contract's requirements, and its size and aggregate dollar amount, will make it unsuitable for award to a small business.

Since it has established that this solicitation will result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis by conducting market research.

Market Research

The acquisition strategy team performs market research to determine what the current competitive environment is for engineering support services within the eastern region. With the exception of three full-service organizations, the team found many "niche player" contractors that lacked the broad-based expertise required to provide consolidated engineering support services. Full-service firms, the team discovered, had the wherewithal to integrate these functions, thus saving customer money. The team believes that the diversity of these services, and the size and aggregate dollar amount of the potential contract, might be beyond the reach of small businesses.

In discussions with its agency's small business specialist and SBA PCR, the acquisition strategy team discovers that the proposed consolidation might cause irreparable harm to small businesses for one of the ten locations. A significant number of small businesses that provide engineering support services in that location recently had been displaced due to the closing of a major network equipment manufacturer.

Because of its concern for causing more displacement to these small businesses, the acquisition strategy team decides to exclude this location, which accounts for roughly 12 million dollars of expenditures to small businesses, from its proposed consolidation.

Anticipated Benefits

The results of market research reveal that the agency might achieve significant price reductions if it consolidates its engineering support services requirements within the eastern region. The acquisition strategy team believes a price reduction is likely, because contractors will be motivated to offer a more competitive bid because of the larger volume and five-year contract period. Furthermore, the team believes a single contractor could easily find ways to eliminate duplication by centralizing certain functions and cutting unnecessary waste. One area the team desires to centralize is the help desk function, most of which, the team reasons, could be done remotely. The team also expects other potential benefits, including lower administrative cost (a cost avoidance) and quality improvements.

Benefit Calculation Method

To calculate the price reduction anticipated from the proposed bundled contract, the acquisition strategy team uses price analysis. *Price analysis* is the process of examining and evaluating a proposed price without evaluating its separate elements of cost and profit. The team takes three steps in its analysis, as described below.

- **STEP 1:** To perform a price analysis, the acquisition strategy team first identifies the current expenditures for these services by contract. For comparison purposes, the team requested ROM pricing for the consolidated services from three contractors identified during market research.

Table 5-1. Price Comparison

Function	Current Contract Expenditures	Contractor #1	Contractor #2	Contractor #3
1. Desktop Computing	$10,685,451	$8,782,251	$9,756,785	$7,988,991
2. General Support	$2,341,751	$1,276,980	$1,578,234	$1,998,990
3. Training	$5,487,980	$3,786,876	$2,998,789	$4,234,987
4. Installation	$6,578,981	$4,786,987	$6,034,089	$5,675,327
5. Technology	$2,231,345	$1,987,675	$2,134,987	$1,675,987
6. Network Operations & Maintenance	$8,781,234	$7,200,456	$8,529,988	$6,987,567
7. Computer Center Operations	$7,896,523	$5,987,634	$6,897,926	$6,986,563
8. Application Software Development	$2,147,890	$2,078,987	$1,987,456	$985,998
9. Help Desk Operations	$15,234,789	$12,002,678	$13,345,002	$12,576,890
10. Telecommunications	$6,234,078	$4,567,998	$5,786,967	$4,890,765
11. Data Unclassified Computer Security	$3,234,987	$2,576,987	$2,986,567	$2,009,345
Total	$70,855,009	$55,035,509	$62,036,790	$56,011,410

STEP 2: Next, the team compares each contractor's ROM pricing with the current contract expenditures by function.

STEP 3: Using an average of the three ROMs ($57,694,570), the team estimates an overall annual price reduction of $13.2 million by subtracting the ROM average from the total of the current contract expenditures ($70,855,009 – $57,694,570 = $13,160,439). When compared to the expected contract value (including options), this estimate yields a 23 percent savings (13,160,439 ÷ 57,694,570 = 0.228).

Bundling Threshold Test

Since the price reduction would yield an estimated savings equal to more than 10 percent of the new contract's value—meeting the "measurably substantial benefits" test—the acquisition strategy team determines that it can proceed with a solicitation. However, the team plans to set aside requirements for small businesses at the location excluded from the benefit calculations to mitigate the impact of this bundled procurement.

EXAMPLE 2: PRICE REDUCTION—PRODUCTS

This example of a benefit analysis demonstrates how to forecast price reductions based on market research and simple estimating techniques.

Current Environment

In the current environment, orders for administrative supplies (e.g., paper, folders, pencils, pens, and calculators) continually flow to numerous suppliers that support multiple organizations within an agency. These organizations independently purchase the same items from different suppliers without any coordination. The annual contract value of all purchases by the agency is $40 million. Driven by the need to streamline agency operations, the acquisition strategy team concludes that consolidating requirements with a single source potentially is a more efficient way to buy administrative supplies.

Realizing that this consolidation might displace several small businesses, the acquisition strategy team uses the decision flow chart in Figure 5-1 to ascertain whether the proposed consolidation will create a bundled contract. If the prospective contract meets all of the criteria described in Figure 5-1, it is a bundled contract.

The team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, currently the agency buys administrative supplies from several suppliers.

- Did a small business previously provide or perform this requirement? Yes, several small businesses provide administrative supplies to the agency through blanket purchase agreements.
- Does the acquisition strategy team intend to award one contract? Yes, it will award a single contract.
- Will the contract performance occur domestically? Yes, the contract performance will occur in the United States.
- Will the contract be unsuitable for a small business? Yes. Because the agency's entire requirement for administrative supplies will be procured under the contract, the contract's size and aggregate dollar amount will make it unsuitable for award to a small business.

Since it has established that this solicitation will result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis by conducting market research.

Market Research

The acquisition strategy team performs market research to determine what the current competitive environment is for administrative supplies. The team finds a somewhat stable industry with many suppliers. Four large suppliers control over 60 percent of the market. The four dominant suppliers have major advantages relative to other industry participants. First, they own and control worldwide distribution centers. Second, they sell a variety of administrative supplies in significant volumes. Third, all four suppliers provide price discounts over a broad range of products and specific quantity ranges.

Anticipated Benefits

The results of market research reveal that the government might achieve significant price reductions if it consolidates administrative supply requirements agency-wide. The acquisition strategy team believes that price reduction is likely, since a supplier will realize lower unit costs with larger volume over a longer contract period. The team also expects other potential benefits, such as lower administrative costs (a cost avoidance) and personnel cost reduction.

Benefit Calculation Method

To calculate the price reduction anticipated from the proposed bundled contract, the acquisition strategy team uses price analysis. The team takes the following steps:

- **STEP 1:** To perform a price analysis, the acquisition strategy team first identifies—in a spreadsheet—450 administrative items purchased from different suppliers for the agency users, the annual quantity purchased, and the average price paid for each item.

- **STEP 2:** The team then compares the information gathered in Step 1 with the catalog discount prices.
- **STEP 3:** After completing the comparison, the team estimates an overall annual price reduction of $4.8 million, or a 12 percent savings, when compared to the estimated contract value of $40 million. They also reason that discounts are likely to be deeper than the price analysis reveals, since government agencies typically receive "most favored customer" status because of the large volume of business they offer suppliers. Furthermore, the team believes that if a longer-term contract is used, even more savings might be attained.

Bundling Threshold Test

Since the price reduction would yield an estimated savings equal to more than 10 percent of the contract's value—meeting the "measurably substantial benefits" test—the acquisition strategy team determines that it can proceed with a solicitation.

EXAMPLE 3: ADMINISTRATIVE COST REDUCTION

The next hypothetical example illustrates cost savings based on an administrative cost reduction. These cost savings are internal to the government and generally are attributable to reductions in the procurement or contract administration cost of a product or service. Eliminating steps in the acquisition process or paperwork associated with contract administration are examples of administrative cost reduction.

Current Environment

In the current environment for this example, multiple contracting offices administer 50,000 purchase orders annually to buy $50 million worth of supplies for the government agency. The average cost of processing a purchase order is $155. Aware of the need to centralize operations, the acquisition strategy team speculates that consolidating requirements with a single source will be a more efficient way to purchase supplies.

Realizing that the solicitation is likely to displace small businesses, the acquisition strategy team uses the decision flow chart displayed in Figure 5-1 to ascertain whether the proposed consolidation will result in a bundled contract. If the prospective contract meets all of the criteria in Figure 5-1, it is a bundled contract. The team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, currently the agency buys supplies from separate, smaller contracts for multiple contract offices.
- Did a small business previously provide or perform this requirement? Yes, five small businesses have contracts to sell supplies to the agency.
- Does the acquisition strategy team activity intend to award one contract? Yes, it will award a single contract.
- Will the contract performance occur domestically? Yes, the contract performance will occur in the United States.
- Will the contract be unsuitable for a small business? Yes. Because the agency's entire requirement for supplies will be procured under a single contract, the diversity of the contract requirements, and its size and aggregate dollar amount, will make it unsuitable for award to a small business.

Since it has established that this solicitation will result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis by conducting market research.

Market Research

The acquisition strategy team finds that four dominant suppliers in the industry sell administrative supplies business-to-business via catalogs on the Internet. Customers using this approach typically create an electronic "market basket" of items they need and order from that "basket," on-line, through an electronic catalog. For most orders, this process takes the contracting organization completely out of the transaction. The team's research also shows that the online system provides real-time tracking so users can determine the status of their orders. In fact, they find that users can receive order acknowledgement from the supplier, usually with shipping commitment dates.

Anticipated Benefits

The acquisition strategy team estimates the following benefits:

- Requisitioning—elimination of time spent by users processing and tracking requisitions and expediting orders.
- Contracting—reduction in time searching for items, obtaining quotations, negotiating, awarding purchase orders, entering orders, expediting, and maintaining purchasing files.
- Receiving—elimination of steps in the receiving process (e.g., the need to match incoming material with an invoice).

- Accounting—reductions in the number of invoices processed. The acquisition strategy team expects the method of payment for the on-line buying process to be the purchase card, allowing the accounts payable organization to receive one monthly invoice and process one check for payment per month.

Benefit Calculation Method

The acquisition strategy team calculates the benefits using the following steps:

- **STEP 1:** The team performs a cost analysis of each step in the purchase order process (requisitioning, contracting, receiving, and accounting).[1] It adds the estimated average cost for each step in the purchase order process, as shown in Table 5-2. The team calculates the average cost to place a purchase order to be $155.[2]

Table 5-2. Average Cost to Place a Purchase Order

	Requisitioning	Contracting	Receiving	Accounting	Total
Est. avg. cost per order	$37.75	$57.00	$30.00	$30.25	$155.00

- **STEP 2:** After entering the purchase card cost for each step into the spreadsheet, the acquisition strategy team compares them to the cost of ordering via a purchase order. The team notes, as illustrated in Table 5-3, that the estimated average cost to place an order using the purchase card is $50 versus the current $155 using a purchase order.

Table 5-3. Comparison of Average Costs

	Requisitioning	Contracting	Receiving	Accounting	Total
Est. avg. cost per order—Purchase order	$37.75	$57.00	$30.00	$30.25	$155.00
Est. avg. cost per order—Purchase card	$27.75	$2.00	$4.25	$16.00	$50.00

[1] Guidance on personnel costs is available from OMB Circular A-76, Supplemental Handbook, Part II—Preparing the Cost Comparison Estimates.

[2] $155 is an estimate only and can vary from organization to organization.

- **STEP 3:** The acquisition strategy team computes the savings by multiplying the current estimated average cost per order ($155) by the annual number of orders (50,000). The annual administrative cost of placing purchase orders is $7.75 million. The team makes the same calculation for the purchase card, using the same number of orders (50,000) multiplied by $50, and computes an annual estimated cost to the agency of $2.5 million to place orders. Table 5-4 reveals total estimated annual savings of $5.25 million.

Table 5-4. Total Estimated Annual Savings

	Estimated average cost per order	Annual number of orders	Annual cost to agency
Purchase order	$155.00	50,000	$7,750,000
Purchase card	$50.00	50,000	$2,500,000
Total estimated annual savings	—	—	$5,250,000

Bundling Threshold Test

On the basis of these computations, the acquisition strategy team determines that consolidating the requirements is justified, since the administrative cost reduction would save 10.5 percent of the estimated contract value of $50 million.[3]

EXAMPLE 4: COST-AVOIDANCE SAVINGS

Less visible but still important are cost-avoidance savings. A cost avoidance involves avoiding a future cost. The cost avoidance can arise from either an internal or an external source. When a CO acts to delay or reduce the impact of a proposed price increase, he or she is achieving cost-avoidance savings. If a proposed bundling gives the government an opportunity to avoid making a future investment, it too creates cost-avoidance savings. The following is a hypothetical example to illustrate cost-avoidance savings.

Current Environment

If agency-wide requirements of $37 million for supplies are to be consolidated, the acquisition strategy team decides it will need a full-time coordinator (GS-13, Step 5) to manage the consolidation across multiple organizations. The coordinator function is critical to a successful consolidation. Users will require help in making the transition from buying by purchase order to buying via purchase card. Some users also may need training. A full-time coordinator can help the various

[3] Note, however, that the acquisition strategy team may not justify bundling solely on the basis of a reduction of administrative or personnel costs unless the reduction is expected to amount to at least 10 percent of the contract value (including options).

agency organizations transition smoothly from purchase orders to on-line purchasing.

Realizing that the solicitation is likely to displace small businesses, the acquisition strategy team uses the decision flow chart displayed in Figure 5-1 to ascertain whether the proposed consolidation will result in a bundled contract. If the prospective contract meets all of the criteria in Figure 5-1, it is a bundled contract. The team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, currently the agency buys administrative supplies from several suppliers.
- Did a small business previously provide or perform this requirement? Yes, several small businesses have blanket purchase agreements to sell administrative supplies to the agency.
- Does the acquisition strategy team intend to award one contract? Yes, it will award a single contract.
- Will the contract performance occur domestically? Yes, the contract performance will occur in the United States.
- Will the contract be unsuitable for a small business? Yes. Because the agency's entire requirement for administrative supplies will be procured under the contract, the contract's size and aggregate dollar amount will make it unsuitable for award to a small business.

Since it has established that this solicitation will result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis by conducting market research.

Market Research

After reading the supplier's brochure, the acquisition strategy team believes a cost avoidance is possible because the supplier offers a full-time, on-site representative when purchases exceed $1 million annually. The on-site representative will provide a wide range of support, including material planning, systems support, training for on-line buying, expediting, and general problem-solving. The cost of the on-site representative is borne by the contractor at no cost to the government.

Anticipated Benefits

The acquisition strategy team sees a benefit in being able to use the supplier's on-site representative, at no cost, in lieu of hiring a GS-13 coordinator.

Benefit Calculation Method

The acquisition strategy team calculates benefits as follows:

- **STEP 1:** The acquisition strategy team estimates a cost avoidance of the salary of one full-time GS-13 (Step 5) employee. The team has determined a GS-13 employee to be equivalent to the supplier's on-site representative. OMB recommends using prevailing wage rates and salaries to determine personnel cost. Fringe benefits, also considered part of personnel cost, should be based on estimates found in the "Federal Accounting Standards for Liabilities—Exposure."[4] The total factor for fringe benefits (full- or part-time) is 32.45 percent.[5]

  The FY 2000 annual salary for a GS-13 (Step 5) employee is $63,281. Multiplying this figure by .3245 yields fringe benefits of $20,534.68.

- **STEP 2:** The acquisition strategy team uses a 12 percent overhead rate obtained from the OMB Circular A-76 Supplemental Handbook. The overhead is computed by adding the cost of the salary and fringe benefits ($63,281 + $20,534.68 = $83,815.68) and multiplying the sum by 0.12, giving an overhead amount of $10,057.88. The "fully burdened" rate is computed by adding the overhead amount to the costs of the salary and fringe benefits ($83,815.68 + $10,057.88 = $93,873.56).

  This equals a cost avoidance savings of less than 1 percent when compared to the estimated contract value of $37 million.

Bundling Threshold Test

For this example, the acquisition strategy team determines that the consolidation cannot be justified solely on the basis of the cost avoidance, because the savings fall short of the "measurably substantial benefits" 10 percent threshold.

EXAMPLE 5: PERSONNEL COST REDUCTION

Reducing the number of in-house labor and supervisory personnel will create a "personnel cost reduction." Included in the cost of in-house labor or supervisory personnel are salaries, wages, fringe benefits, and other entitlements, such as uniform allowances and overtime.[6] Personnel cost reductions are internal savings to

[4] This information also can be found in the current OMB Circular A-76, Supplemental Handbook, Part II—Preparing the Cost Comparison Estimates, Chapter 2—Developing the Cost of Government Performance, B. Personnel—Line 1, 6f, Fringe Benefits.

[5] Ibid.

[6] See OMB Circular A-76 Revised Supplemental Handbook, Part II—Preparing the In-House Estimate and Contract Cost, June 1999, p. 19.

the government. The following is an example of savings from reducing personnel costs.[7]

Current Environment

In the current environment, agency requirements of $30 million annually for needed products and services are provided by multiple suppliers. Because an on-line buying process would eliminate most of the manual work required to process 55,000 purchase orders annually, the acquisition strategy team decides to investigate whether work can be reallocated or positions can be eliminated.

Realizing that the solicitation is likely to displace small businesses, the acquisition strategy team uses the decision flow chart displayed in Figure 5-1 to ascertain whether the proposed consolidation will result in a bundled contract. If the prospective contract meets all of the criteria in Figure 5-1, it is a bundled contract. The team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, currently the agency buys products and services from several suppliers.
- Did a small business previously provide or perform this requirement? Yes, several small businesses provide products and services to the agency.
- Does the acquisition strategy team intend to award one contract? Yes, it will award a single contract.
- Will the contract performance occur domestically? Yes, the contract performance will occur in the United States.
- Will the contract be unsuitable for a small business? Yes. Because the agency's entire requirement for products and services will be procured under the contract, the contract's size and aggregate dollar amount will make it unsuitable for award to a small business.

Since it has established that this solicitation will result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis by conducting market research.

Market Research

From supplier brochures, the acquisition strategy team identifies three government agencies that have consolidated their procurement of products and services with a single source. Eager to understand more about their experience, the team interviews representatives from those three agencies. It finds that—in each case—

[7] Note, however, that acquisition strategy teams may not justify bundling solely on the basis of a reduction of administrative or personnel costs unless the reduction is expected to amount to at least 10 percent of the contract value (including options).

the workload for placing purchase orders has dropped significantly. Similarly, all three agencies have reallocated personnel to higher-level work and have eliminated several positions.

Anticipated Benefits

The acquisition strategy team estimates that 10 GS-9 positions can be eliminated by using an on-line buying process. Since users can place their own orders directly with the supplier, there is no longer a need for GS-9 employees to process each purchase order manually. The team reasons that there is also the potential for cost-avoidance savings, since reallocation of other GS personnel will avoid future costs.

Benefit Calculation Method

The acquisition strategy team calculates benefits as follows:

- **STEP 1:** The acquisition strategy team estimates a personnel cost reduction using the salary of one full-time GS-9 employee and multiplying it by the number of positions eliminated. OMB recommends using prevailing wage rates and salaries to determine personnel cost. Fringe benefits, also considered part of personnel cost, should be based on estimates found in the "Federal Accounting Standards for Liabilities—Exposure."[8] The total factor for fringe benefits (full- or part-time) is 32.45 percent.[9]

  The FY 2000 annual salary for a GS-9, Step 5 employee is $36,696. Multiplying this figure by .3245 yields fringe benefits of $11,907.85.

- **STEP 2:** The acquisition strategy team uses a 12 percent overhead rate obtained from the OMB Circular No. A-76 Supplemental Handbook. The overhead is computed by adding the cost of the salary and fringe benefits ($36,696 + $11,907.85 = $48,603.85) and multiplying it by 0.12, giving an overhead amount of $5,832.46. The "fully burdened" rate is computed by adding the overhead amount to the costs of the salary and fringe benefits:

  $48,603.85 + $5,832.46= $54,436.31

  $54,436.31 multiplied by 10 (positions) equals $544,363.10.

  This equals personnel cost savings of 1.8 percent when compared with the estimated contract value of $30 million.

[8] See page 20, 6f, of OMB Circular A-76, Supplemental Handbook, Part II.

[9] This information also can be found in the current OMB Circular A-76, Supplemental Handbook, Part II—Preparing the Cost Comparison Estimates, Chapter 2—Developing the Cost of Government Performance, B. Personnel—Line 1, 6f, Fringe Benefits.

Bundling Threshold Test

As in the previous example, the acquisition strategy team determines that the proposed consolidation cannot be justified solely on the basis of the reduction in personnel, because the savings do not meet the "measurably substantial benefits" threshold of 10 percent.

SUMMARY

This chapter has provided a framework for estimating cost savings benefits derived from a proposed bundling. While there are several forms of cost savings (e.g., price reductions, cost avoidance, administrative cost reductions, and personnel cost reductions), they all result in either a lower price paid for products and services or a lower overall cost to the government.

The consolidation of requirements with a single source often affords contractors the opportunity to reduce prices. A price reduction, the most basic form of cost savings, is external savings to the government.

Savings that come from improvements made to the acquisition process or contract administration are administrative cost reductions. They are internal savings to the government. A consolidation of requirements that eliminates unnecessary steps from the acquisition process will result in administrative cost savings. Preventing a future cost from occurring is a cost avoidance. This type of savings can be both internal and external to the government. While cost avoidance savings can be somewhat controversial, it is quite proper to include them as anticipated benefits, provided they are thoroughly documented. Finally, personnel cost reductions occur only when the government eliminates employee positions. This type of savings is internal to the government.

Chapter 6

Benefit Analysis—Quality Improvement

INTRODUCTION

Quality improvements make a product or service better in some way. Since what constitutes “quality” is somewhat subjective, metrics measure quality in terms of reliability, maintainability, adaptability, and supportability. This chapter uses a hypothetical example to illustrate how an acquisition strategy team might undertake a benefit analysis that is based on improvements in quality (technical benefits).

EXAMPLE: TECHNICAL BENEFITS

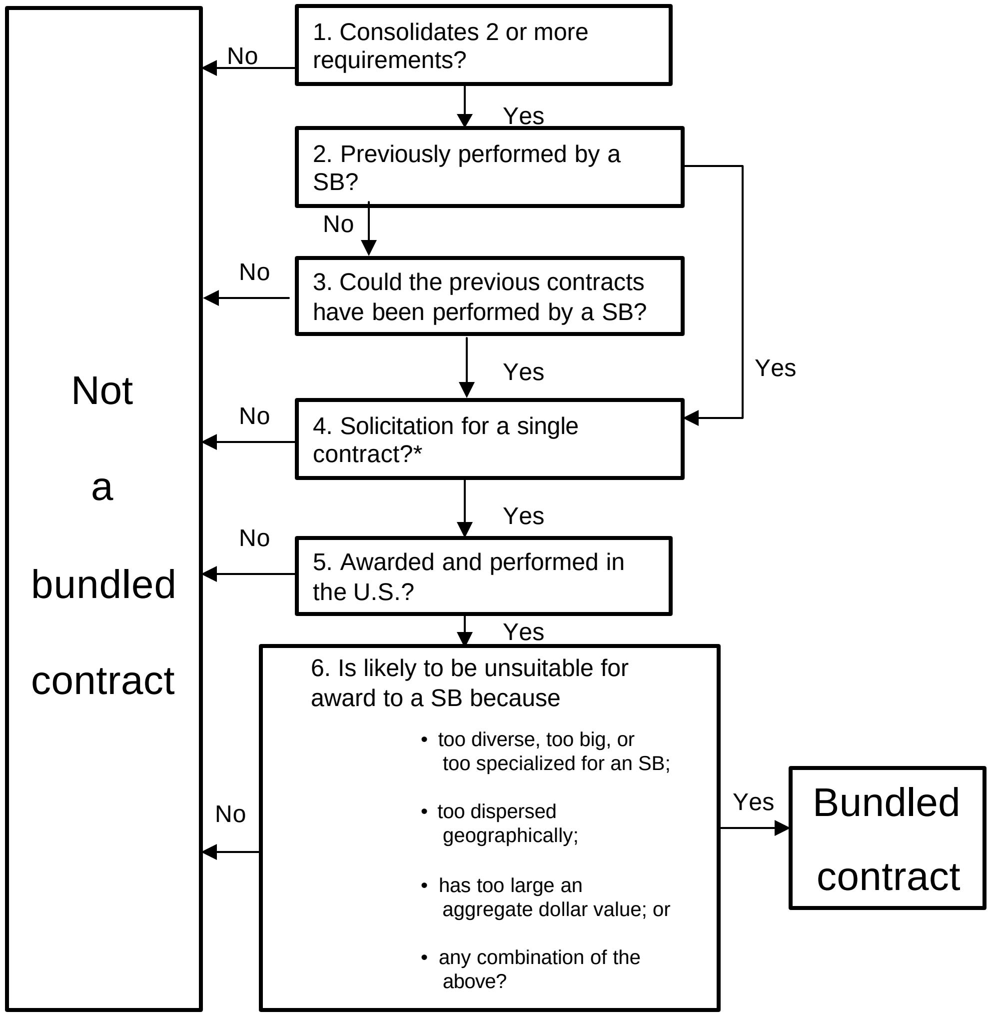
This example illustrates how converting to integrated desktop services reduces the cost of help-desk operations.

Current Environment

Currently the agency uses multiple contractors for its desktop information technology (IT) requirements. The total value of all of the agency’s desktop IT contracts is $40 million. Unfortunately, the agency is beset with incompatible desktop computers, interoperability problems, service interruptions, and system installation problems. Large businesses provide the bulk of the desktop computers and associated peripherals and software, while small businesses provide help-desk services, security, and training. Rather than relying on this current fragmented approach, the acquisition strategy team believes that having a single contractor responsible for all of the agency’s desktop IT requirements will improve the agency’s computer support.

Realizing that the solicitation is likely to displace small businesses, the acquisition strategy team uses the decision flow chart displayed in Figure 6-1 to ascertain whether the proposed consolidation will result in a bundled contract. If the prospective contract meets all of the criteria in the chart, it is a bundled contract.

Figure 6-1. Decision Flow Chart for Determining Whether a Contract Is Bundled



Note: SB = Small business.
*The sole fact that one solicitation results in award of multiple contracts, especially ID/IQ contracts, does not guarantee that the resulting consolidated contracts are not bundled contracts. For example, if an acquisition strategy team is considering issuing a solicitation for multiple-award contracts that are likely to be unsuitable for award to small business, one or more of these contracts may displace small businesses and, therefore, may be a bundled contract. Consequently, when analyzing whether to proceed with a multiple-award contract, the acquisition strategy team should evaluate each multiple-award contract scenario by using the decision flow chart above to determine whether one or more of the anticipated awards are being bundled.

The team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, currently the agency buys computer hardware, software, and related services from many suppliers.
- Did a small business previously provide or perform this requirement? Yes, several small businesses provide help-desk services, security, and training support.

- Does the acquisition strategy team intend to award one contract? Yes, it will award a single consolidated contract.
- Will the contract performance occur domestically? Yes, the contract performance will occur in the United States.
- Will the contract be unsuitable for a small business? Yes. The contract's potential size and specialized nature make it an unsuitable award for a small business.

Because it has established that this solicitation will result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis, starting with market research.

Market Research

The acquisition strategy team performs an industry-wide analysis of desktop computers and associated software. There are many suppliers in the industry. The team concludes that superior suppliers offer a full complement of integrated products and services. These products and services include desktop computers and associated peripherals, commercial off-the-shelf software, installation, help-desk services, maintenance, security, and training.

Also, the acquisition strategy team is able to identify and interview three government agency customers of two full-service suppliers. The agencies report a 15 to 20 percent savings from consolidating IT requirements with a single source. Most of these cost savings flow from enhanced technical benefits. The agencies also cite a 50 percent reduction in help-desk activity.

The acquisition strategy team concludes that technical benefits can be derived from consolidating IT requirements and making buys in an integrated fashion from a single contractor.

Anticipated Benefits

By consolidating requirements with one contractor, the acquisition strategy team projects the following technical benefits:

- Improved infrastructure interoperability and product compatibility,
- Elimination of service interruptions and installation problems,
- Centralized management of software requirements,
- Centralized management of training and security, and
- Timely upgrades and refreshment of technology.

The team also expects that the agency will achieve cost savings by buying all of its IT requirements from a single source.

Benefit Calculation Method

Using the help-desk log of over 50,000 service requests from the previous year, the acquisition strategy team performs a cost analysis to estimate the cost to the government of the agency's service interruptions, system installations, maintenance calls, and training. Using an average, fully burdened cost for an agency employee of $22.00 an hour, the team develops an estimate of help-desk costs as shown in Table 6-1.

Table 6-1. Agency Help-Desk Costs

Help-desk activity	Labor hours	Cost
Service interruptions	208,700 hrs. @ $22.00/hr.	$4,591,400
Installation	73,000 hrs. @ $22.00/hr.	$1,606,000
Maintenance	94,000 hrs. @ $22.00/hr.	$2,068,000
Training	12,000 hrs. @ $22.00/hr.	$264,000
Total	387,700 hrs.	$8,529,400

Using the average cost reduction of 50 percent for these activities (from market research), the acquisition strategy team expects the annual cost of help-desk operations to fall from $8,529,400 to $4,264,700.

Dividing the estimated savings of $4,264,700 by the estimated contract value ($40 million) yields a 10.7 percent improvement.

Bundling Threshold Test

Given the estimated savings of $4.3 million, the acquisition strategy team may proceed with the bundled procurement.

SUMMARY

This chapter provided a simple example of benefit analysis focused on quality improvement (technical benefits). In the example, the acquisition strategy team considered consolidating desktop services as a means of reducing help-desk operational costs. The team decided to move forward with the consolidation only after assessing the procurement and conducting a benefit analysis that showed the consolidation would result in savings above the threshold for measurably substantial benefits.

Chapter 7

Benefit Analysis—Reduced Acquisition Cycle Time

INTRODUCTION

Acquisition cycle time is the amount of time that elapses between the identification of a requirement and the delivery of a product or service to the end user. Reducing acquisition cycle time by simplifying the acquisition process in some fashion may lead to measurably substantial benefits. If, for example, an acquisition strategy team consolidates supply procurements under one contractor that satisfies requirements more rapidly, a number of advantages may accrue. Inventory levels may decrease, the amount of storage space needed may decline, and costs associated with these functions may diminish. In the following example, making the transition to a just-in-time supplier reduces some of the costs associated with holding inventory in different locations.

EXAMPLE: CYCLE TIME REDUCTION

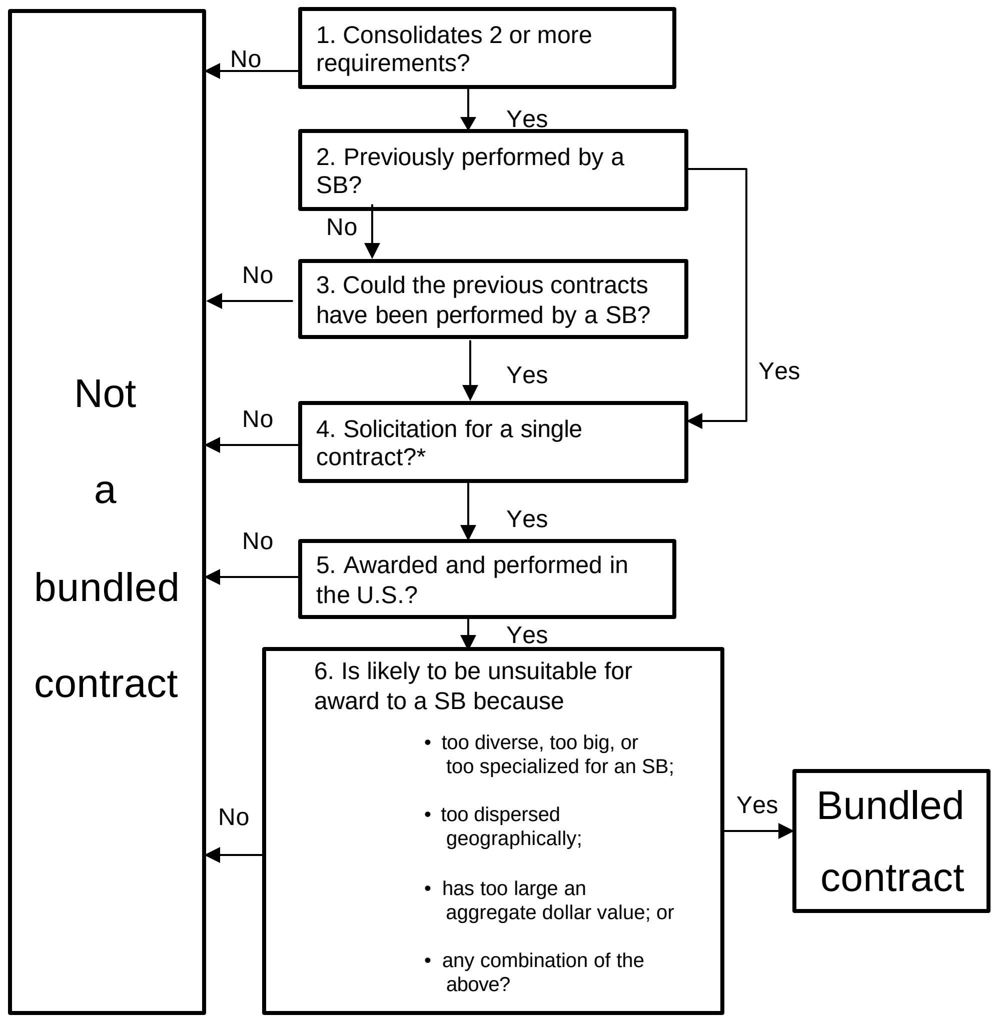
Current Environment

Completing facility maintenance actions at one large military installation has become a major problem because of the time required to acquire the necessary parts. Many maintenance work orders are not completed for months because, after a maintenance problem is identified and the required parts are requisitioned from central supply, it takes 21 days on average for those parts to become available and additional time for the maintenance crew to be assigned. Experience has shown that the central supply is unable to maintain an adequate inventory of high-demand items. The parts held in central supply frequently are low-demand items—the wrong parts are sitting on the shelves. If necessary parts are unavailable, the work has to be rescheduled. In general, the unavailability of required supplies has delayed work and has forced expensive workarounds and overtime. One result has been that local supply sections hold excessive inventories because of their past experience with central supply support.

The installation's acquisition strategy team has developed a new, just-in-time approach for acquiring and delivering building maintenance and cleaning supplies directly to the central warehouse and the 22 tenant-unit supply sections. It is estimated that a new contract to accommodate this approach will be valued at $6 million annually. Given the installation's past dependence on small businesses to provide needed supplies through purchase orders or purchase card buys, it appears that using a single, large just-in-time supplier will displace many local small business suppliers and a small business delivery service.

Realizing that the solicitation is likely to displace small businesses, the acquisition strategy team uses the decision flow chart displayed in Figure 7-1 to ascertain whether the proposed consolidation will result in a bundled contract. If the prospective contract meets all of the criteria in the chart, it is a bundled contract.

Figure 7-1. Decision Flow Chart for Determining Whether a Contract Is Bundled



Note: SB = Small business.
*The sole fact that one solicitation results in award of multiple contracts, especially ID/IQ contracts, does not guarantee that the resulting consolidated contracts are not bundled contracts. For example, if an acquisition strategy team is considering issuing a solicitation for multiple-award contracts that are likely to be unsuitable for award to small business, one or more of these contracts may displace small businesses and, therefore, may be a bundled contract. Consequently, when analyzing whether to proceed with a multiple-award contract, the acquisition strategy team should evaluate each multiple-award contract scenario by using the decision flow chart above to determine whether one or more of the anticipated awards are being bundled.

The team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, currently the installation buys building maintenance and cleaning supplies from several suppliers.

- Did a small business previously provide or perform this requirement? Yes, several small businesses have blanket purchase agreements to sell building maintenance and cleaning supplies to the installation.
- Does the acquisition strategy team intend to award one contract? Yes, it will award a single 3-year contract to one supplier.
- Will the contract performance occur domestically? Yes, the installation is located in the United States, where contract performance will occur.
- Will the contract be unsuitable for a small business? Yes. Because the installation's total requirements for building maintenance and cleaning supplies will be aggregated, the contract's size and its aggregate dollar amount will make it unsuitable for award to a small business.

Since it has established that the proposed solicitation would result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis by conducting market research.

MARKET RESEARCH

The acquisition strategy team performs market research to determine how other, nearby large facilities acquire building maintenance and cleaning supplies. They find that a large private university and a state hospital both acquire facility maintenance and cleaning supplies from one, large industrial supply firm that provides both bulk and package delivery services. The university and the hospital both report excellent supplier support using predetermined item lists with overnight fill rates of at least 98 percent and 3-day fill rates of 100 percent. These institutions report average supply requisition lead-times of less than 2 days. The acquisition strategy team also learns that, depending on the level of supply support required (e.g., same day, overnight, or 2–3 days), a variety of delivery services and pricing arrangements are available from this supplier. The acquisition strategy team finds a regional market that offers competitive prices across a range of supply and support services. This regional market is sufficient to support the military installation's annual requirements.

ANTICIPATED BENEFITS

The acquisition strategy team believes that it can reduce the costs of carrying inventory by eliminating almost all central warehouse and unit supply section inventories. Furthermore, it can achieve a significant improvement in acquisition cycle time and therefore supply support, if it consolidates central supply requisitions and the numerous small purchases for facility maintenance and cleaning supplies into one large, just-in-time delivery contract. Another benefit of reducing the time required for acquiring facility maintenance supplies will be improved performance by the public works maintenance crews. They no longer will start carrying out a maintenance work order only to suspend it while awaiting parts. Labor resources can be more efficiently applied—resulting in less rescheduling and overtime.

BENEFIT CALCULATION METHOD

To calculate the estimated benefits anticipated from the consolidation, the acquisition strategy team determines the amount of inventory held at the installation's central warehouse and at the 22 tenant-unit supply sections. It finds that over the past 5 years, the central warehouse facility has held, on average, maintenance and cleaning supplies inventory valued at $1.06 million, housed in 8,000 square feet of warehouse space. Additionally, the team finds that each of the 22 unit-supply sections holds, on average, another $40,000 of facility maintenance and cleaning supplies. The combined value of inventory held throughout the installation is $1.94 million ($1.06 million central supply plus $880 thousand at the local supply sections).

The annual cost of holding $1.94 million in inventory is based on the government's cost of borrowing ($1.94 million multiplied by 6.375 percent). This equals $123,675 of inventory carrying costs.

The cost of leasing comparable warehouse space to store that inventory is estimated at $4 per square foot multiplied by the 8,000 square feet, for an annual cost of $32,000.

Having facility maintenance parts available when they are needed will permit better scheduling of work requests and will reduce expensive overtime. The acquisition strategy team estimates that, annually, $286,620 in overtime (8,500 hours at $33.72 per hour—at the wage grade 8, step 3, rate of $16.97 at time-and-a-half, fully burdened) will be avoided. (The cost avoidance example illustrates how to perform this calculation.)

The transportation cost of delivering bulk supplies from the central warehouse to the 22 unit-supply sections is estimated at $49,800 annually. This figure is based on the estimated number of trips and mileage of the small business trucking company that currently provides on-call delivery services throughout the base. Table 7-1 summarizes the estimated savings.

Table 7-1. Estimated Savings

Benefit category	Annual cost savings
Inventory carrying cost	$123,675
Warehouse cost	$32,000
Maintenance overtime	$286,620
Transportation cost	$49,800
Total benefit	$492,095

BUNDLING THRESHOLD TEST

The projected bundled contract's value for one year is estimated at $6 million. To permit bundling, savings of at least 10 percent (or $600,000 annually) must be achieved. The savings estimate of $492,095 per year falls $107,905 short of the threshold requirement. Stated otherwise,

$492,095 ÷ $6,000,000 = 8.2 percent.

The bundling cannot proceed, because the estimated savings are less than 10 percent.[1]

SUMMARY

Reducing acquisition cycle time by simplifying the acquisition process in some manner may yield savings. In this chapter's example, inventory levels decreased, the amount of storage space needed declined, and costs associated with these functions decreased. In this chapter's example, shifting from many suppliers to a single supplier led to savings; however, not enough to meet the measurably substantial benefits test.

[1] But see FAR 7.107(c).

Chapter 8

Benefit Analysis—Better Terms and Conditions

INTRODUCTION

Often, a proposed bundling will result in better terms and conditions for the government. If it will result in more business, contractors are more willing to offer better terms and conditions. Better terms and conditions may offer significant benefits to the government, such as better warranties or service terms, more favorable payment schedules, or forward pricing discounts. The following are some of the improved terms and conditions that may be achievable through bundling:

- *Improved warranty terms*. Extended warranty periods, broader and more comprehensive warranty coverage, and more streamlined warranty processes are all potential advantages for the government. Sometimes warranty-like advantages are offered in the form of free or extended no-cost upgrades to software as a part of a total package arrangement.

- *Pricing*. Potential offerors may make longer-term commitments to stated prices or make "most favored customer" commitments that afford the government the benefits of any special pricing given to large customers. If market research or informal indications from potential offerors show that such pricing benefits might be included in submitted offers in a consolidation situation, these benefits should be taken into account when estimating the financial benefits that may arise from proposed bundling.

- *Streamlined ordering processes*. Frequently, in return for a long-term commitment to an exclusive supply arrangement, offerors will propose ordering and/or delivery arrangements that are much more efficient and user-friendly than the current arrangements. Such features as electronic order placement, more widespread authorization to place orders, or other innovative processes may be included in offers responding to solicitations for bundled requirements. Market research can help greatly in estimating whether such arrangements are likely to be included in offers for a bundled requirement. To the extent that they are likely to be offered, their impact on, and benefits to, the ordering, managing, or using organizations should be factored into the overall prospective benefit calculation.

Justifying the consolidation of requirements on the basis of better terms and conditions is difficult because, as is the case with a quality improvement, their measure is less obvious than a more tangible benefit like a price reduction. This means that organizations intending to justify bundling on the basis of better terms and conditions must be able to convert the new arrangement into some measure of dollars. Part of a benefit analysis developed to justify a procurement of this type might have to demonstrate a link between the new arrangement and reduced overall cost to the government. This chapter's example illustrates how an organization might undertake a benefit analysis based on obtaining better warranty terms and conditions.

EXAMPLE: WARRANTIES

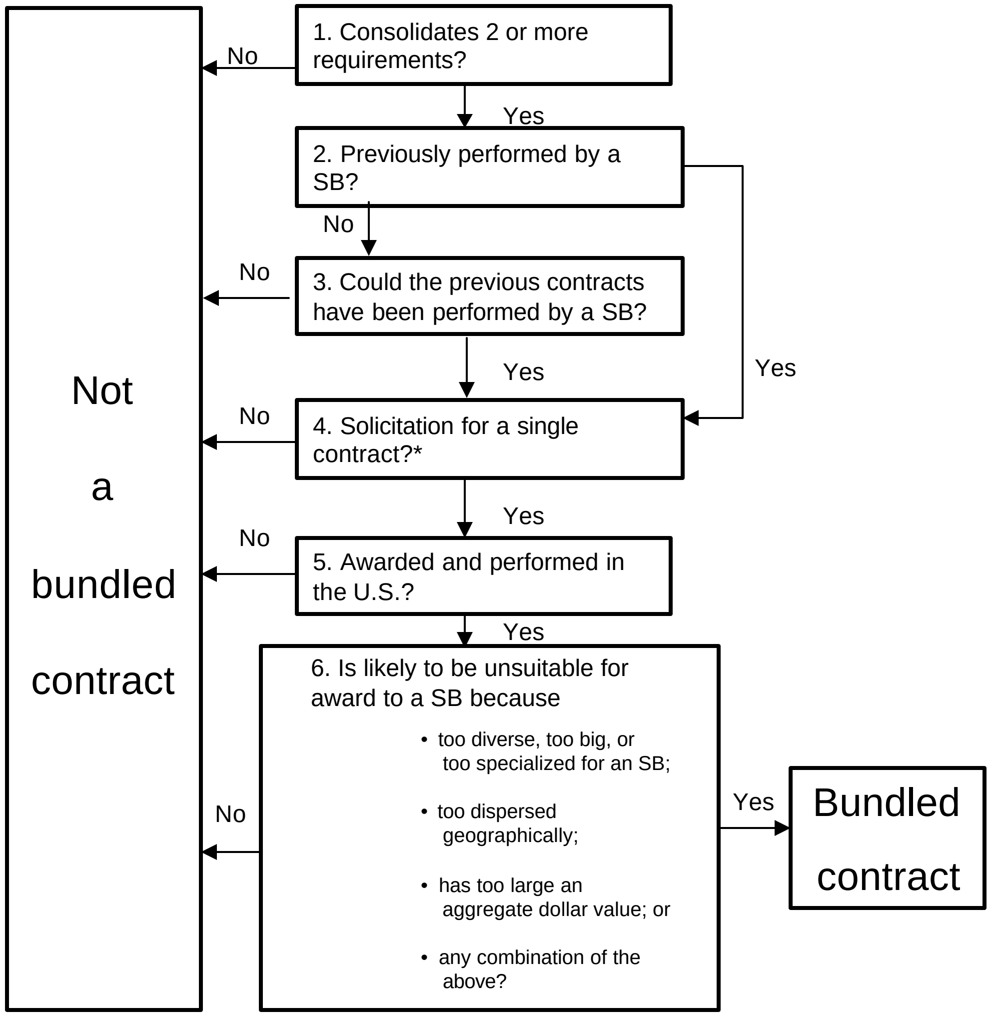
A warranty is a guarantee given by a company to the purchaser stating, first, that a product is reliable and free from known defects, and second, that the seller will, without charge, repair or replace defective parts within a given time limit and under certain conditions. Warranty time limits and extent of coverage vary.

Current Environment

In the current environment, an agency contracts with three suppliers, one large business and two small businesses, for network switches (equipment). The combined value of the three contracts (including option years) is $35 million. Approximately 90 percent of the equipment in use at the agency is no longer under warranty. The warranties provided by equipment manufacturers under the current contracts were short-term (12 months) and offered unfavorable terms that resulted in very high repair costs. The average cost to the agency to repair each equipment failure, once the equipment is out of warranty, is $1,500; under warranty, the repair cost is $100 for shipping and handling. Last year, equipment repair costs had grown to over $2.5 million. Driven by the need to replace its aging equipment and lower its repair costs, the agency seeks to replace the current equipment and its multiple suppliers with a single source offering more favorable warranty terms and conditions.

Realizing that the solicitation is likely to displace small businesses, the acquisition strategy team uses the decision flow chart displayed in Figure 8-1 to ascertain whether the proposed consolidation will result in a bundled contract. If the prospective contract meets all of the criteria in the chart, it is a bundled contract.

Figure 8-1. Decision Flow Chart for Determining Whether a Contract Is Bundled



Note: SB = Small business.
*The sole fact that one solicitation results in award of multiple contracts, especially ID/IQ contracts, does not guarantee that the resulting consolidated contracts are not bundled contracts. For example, if an acquisition strategy team is considering issuing a solicitation for multiple-award contracts that are likely to be unsuitable for award to small business, one or more of these contracts may displace small businesses and, therefore, may be a bundled contract. Consequently, when analyzing whether to proceed with a multiple-award contract, the acquisition strategy team should evaluate each multiple-award contract scenario by using the decision flow chart above to determine whether one or more of the anticipated awards are being bundled.

The acquisition strategy team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, the agency currently buys equipment and services from more than one supplier.
- Did a small business previously provide or perform this requirement? Yes, small businesses have contracts to provide this equipment to the agency.

- Does the acquisition strategy team intend to award one contract? Yes, it will award a single consolidated contract.

- Will the contract performance occur domestically? Yes, the agency is located in the United States, where the contract performance will occur.

- Will the contract be unsuitable for a small business? Yes. Because the agency's entire requirement for equipment will be procured under this contract, its size and aggregate dollar amount will make the contract unsuitable for award to a small business.

Since it has established that this solicitation will result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis by conducting market research.

Market Research

The agency plans to replace its obsolete equipment and believes that the key to lowering its repair bills is to obtain more favorable warranty coverage than it has been receiving through procuring equipment from multiple suppliers. The acquisition strategy team performs market research to better understand customary warranty terms and conditions for equipment. The market research reveals that three large commercial equipment manufacturers offer extended warranty coverage for contracts exceeding $10 million annually. Notably, the team learns that

- three-year warranties without additional charge are now available—current incumbents offer only 1.5 year warranties—if new machines are purchased from them,

- the average Mean Time Between Failure Guarantee (MTBFG)[1] of 2,000 hours is now customary for equipment, and

- most suppliers provide a full-time maintenance representative—at no cost to the customer—on large procurements.

Anticipated Benefits

The acquisition strategy team reasons that, through consolidating requirements with a single source, it can reduce its cost for system failures by

- extending warranty coverage to 3 years and

[1] Generally, commercial contractors will provide the MTBFG for their equipment. A practical way to obtain this information is to request it in a ROM, or request for information. When requesting MTBFG, the acquisition strategy team should specify that contractors must provide minimum values. See the Defense Systems Management College "Warranty Guidebook" 1992, p3-9 for more information on MTBFG.

- reducing the number of failures (based on an average MTBFG of 2,000 hours).

Benefit Calculation Method

The agency expects to buy approximately 3,000 systems of new equipment over the next 36 months to replace its current systems. The acquisition strategy team estimates that each system will operate 112 hours a month. From this information, it calculates the total use over 3 years, for each system, to be 4,032 hours (112 hours per month multiplied by the contract period of 36 months). Next, using the MTBFG of 2,000 operating hours, the team determines that it should expect 2 failures per system (4,032 hours divided by the MTBFG), or 6,000 failures across all systems. In other words, each system will have to be repaired twice. Hence, the differing warranty periods (1.5 versus 3 years) provide a basis for determining which would be more beneficial to the agency.

Using the incumbent suppliers would cost the agency $4,800,000 (3,000 out-of-warranty repairs multiplied by $1,600 [$1,500 repair cost plus $100 shipping and handling]) and 3,000 under-warranty repairs at $300,000, for a total of $5,100,000. The new supplier offering the longer warranty terms would cost the agency only $600,000. Hence, the agency would avoid significant repair costs. When compared with the estimated contract value of $35 million, the cost avoidance would be 12.8 percent:

$$\$4.5 \text{ million} \div \$35 \text{ million} = 12.8 \text{ percent}$$

Bundling Threshold Test

On the basis of the benefit calculation, the acquisition strategy team determines that bundling the requirements is justified.

SUMMARY

This chapter has provided an example of a benefit analysis based on realizing better warranty terms and conditions. The acquisition strategy team sought to bundle requirements in an effort to reduce equipment repair costs by negotiating better warranty coverage. Upgrading equipment and warranty coverage simultaneously enabled the agency to reduce its O&S costs dramatically. Keeping abreast of technology trends through continuous market research enables organizations to identify and take advantage of such opportunities. By encouraging the active participation of the agency small business specialists, the acquisition strategy team may be able to set aside or reserve portions of this equipment procurement for small businesses.

Chapter 9
Benefit Analysis—"Other" Benefits

INTRODUCTION

When a benefit analysis is performed, there may well be some benefits that do not fit into any of the benefit categories this guidebook has discussed. Examples include improved service, customer satisfaction, and morale. An acquisition strategy team may classify such benefits as "other benefits."

This chapter provides an example of such a benefit by illustrating how to perform a benefit analysis for improved service—an intangible benefit.

EXAMPLE: IMPROVED SERVICE

One way to capture the value of an intangible benefit is to quantify it by converting the benefit into labor-hour savings. When contractors provide less than adequate service, users generally spend time complaining to the contracting organization. The contracting organization then burns up more time communicating the complaints to contractors and acting as a conciliator between users and contractors. Managing the required corrective actions takes even more of the organization's time. Less than adequate service also may affect productivity when it prevents employees from performing their jobs. Ultimately, it will result in a higher cost to the government. By focusing on the measurable impact of labor-hour savings, the acquisition strategy team can express those savings in dollars.

Current Environment

In the current environment, 5 prime contractors (2 large and 3 small businesses) provide information management (IM) services to bases in 4 regions where the government agency is located. The services include posting and updating publications and forms; converting agency publications to an on-line medium; publishing and distributing base bulletins; sorting, posting, and delivering mail; and managing records. The combined annual dollar value of the 5 contracts is $20 million.

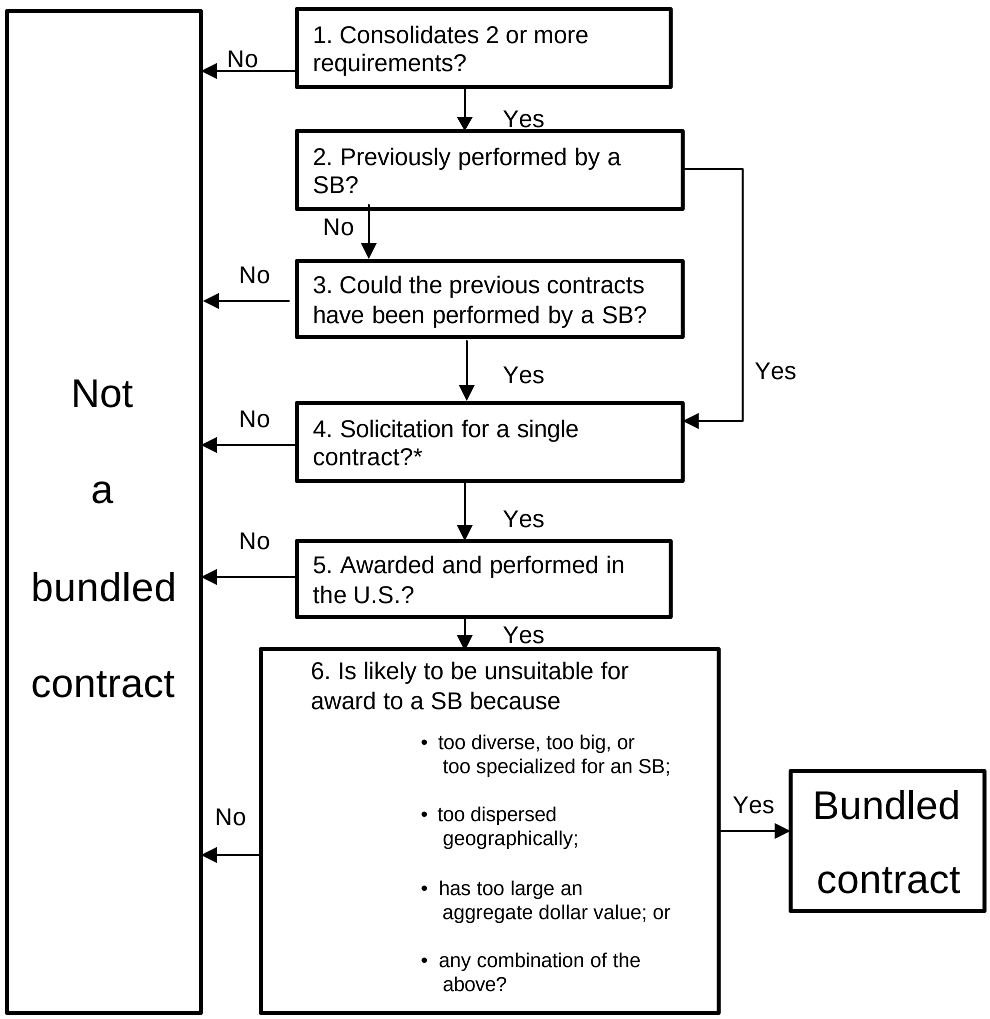
The agency has received numerous complaints concerning lost mail and records, inaccurate postings, late deliveries, worker turnover, absenteeism, and slow response by the contractors' management to these complaints. One major problem caused by slow mail deliveries and inaccurate postings resulted in significant downtime for some bases. Over the past 12 months, the agency has kept a log of 400 complaints received from agency employees and the follow-up actions taken to resolve these complaints. The log measures contractors' service to the agency, which is factored into overall performance ratings.

To resolve complaints, the agency generally has to set up meetings with each contractor's senior management to provide user feedback to them and to discuss their plans for corrective action. To monitor progress, the agency schedules quarterly follow-up meetings.

The acquisition strategy team believes that one way to improve service is to consolidate the agency's IM requirements with a single, more customer-oriented contractor. Because of the geographical dispersion of the contract performance sites, the potential consolidation is likely to be unsuitable for award to small business.

Realizing that the solicitation is likely to displace small businesses, the acquisition strategy team uses the decision flow chart displayed in Figure 9-1 to ascertain whether the proposed consolidation will result in a bundled contract. If the prospective contract meets all of the criteria in the chart, it is a bundled contract.

Figure 9-1. Decision Flow Chart for Determining Whether a Contract Is Bundled



Note: SB = Small business.
*The sole fact that one solicitation results in award of multiple contracts, especially ID/IQ contracts, does not guarantee that the resulting consolidated contracts are not bundled contracts. For example, if an acquisition strategy team is considering issuing a solicitation for multiple-award contracts that are likely to be unsuitable for award to small business, one or more of these contracts may displace small businesses and, therefore, may be a bundled contract. Consequently, when analyzing whether to proceed with a multiple-award contract, the acquisition strategy team should evaluate each multiple-award contract scenario by using the decision flow chart above to determine whether one or more of the anticipated awards are being bundled.

The team answers the following questions before performing a benefit analysis:

- Does the solicitation consolidate more than one requirement? Yes, currently the agency buys IM services from several suppliers.
- Did a small business previously provide or perform this requirement? Yes, several small businesses provide IM services to the agency.
- Does the acquisition strategy team intend to award one contract? Yes, it will award a single contract.

- Will the contract performance occur domestically? Yes, the contract performance will occur in the United States.

- Will the contract be unsuitable for a small business? Yes. Because the agency's entire requirement for IM services will be procured under the contract, the contract's size and aggregate dollar amount will make it unsuitable for award to a small business.

Since it has established that this solicitation will result in a bundled contract, the acquisition strategy team proceeds with its benefit analysis by conducting market research.

Market Research

The acquisition strategy team concludes that one of several benefits of consolidation might be improved service. To test this hypothesis, the team performs market research on IM providers industrywide to determine the various advantages that each might have in the marketplace. The team's findings convinces it to proceed with a benefit analysis. First, several providers of IM services have sophisticated complaint resolution systems that are part of their overall corporate customer satisfaction programs. Second, after following up with other government agency customers, the team found minimal complaints concerning these IM providers. The agencies attribute this good record to the contractors' emphasis on customer satisfaction and their ability to resolve problems before they become complaints.

Anticipated Benefits

The acquisition strategy team concludes that selecting a single contractor that can provide service across all four regions and that has an exemplary customer satisfaction program would eliminate the high cost of less than adequate service to the agency. The acquisition strategy team expects, in addition to the savings from improved service, cost savings from the consolidation of requirements.

Benefit Calculation Method

Using the log of 400 complaints, the acquisition strategy team performs a cost analysis to estimate the cost of less than adequate service to the agency. The team identifies four cost drivers:

- User complaints,

- Investigation of complaints,

- Follow-up time, and

- Employee downtime.

Next, the acquisition strategy team estimates the number of lost labor hours (see Table 9-1). The team determines the GS level with the highest number of transactions in each category by interviewing a sample of the personnel associated with each cost driver. By multiplying the fully burdened, hourly labor rate by the total number of hours for each cost driver, the team concludes that the annual estimated cost of less than adequate service is $639,670.[1]

Table 9-1. Cost of Less Than Adequate Service

Cost driver	Labor-hours	Cost
User complaints	3,200 hrs. @ $26.00/hr. GS-12	$ 83,200
Investigation of complaints	4,000 hrs. @ $20.50/hr. GS-10	$ 82,000
Follow-up time	5,500 hrs. @ $32.10/hr. GS-13	$176,550
Employee downtime	16,000 hrs. @ $18.62/hr. GS-9	$297,920
Total	28,700 hrs.	$639,670

The acquisition strategy team calculates the value of the benefits as follows: the annual estimated savings (avoided cost of less than average service) = $639,670, divided by the estimated contract value ($20 million) yields a benefit of 3 percent of the value of the contracts.

Bundling Threshold Test

The acquisition strategy team determines that consolidating the requirements is not justified, since the savings from improved service alone would not yield the required 10 percent minimum.

SUMMARY

When a benefit does not clearly fit into one of the other categories, the acquisition strategy team may classify it under “other benefits.” Because this category of benefits is a catchall category, the team must exercise judgment when deciding where to classify a benefit. This chapter addressed improved service to illustrate “other benefits.” Because benefit categories may overlap, improved service also might fit into the category of “quality improvement.” However, if the acquisition strategy team treats service and quality as separate performance measures, as in this example, it is appropriate to classify improved service under “other benefits.”

[1] The acquisition strategy team divides the direct salary (from the General Salary Schedule) by 2,087 hours to obtain the hourly rate.

Chapter 10
Summary

Acquisition strategy teams should try to avoid contract bundling, because it displaces small businesses. However, this is not always possible. Chapter 1 of this guidebook described an approach that acquisition strategy teams should use to determine whether consolidating requirements necessitates a benefit analysis.

BUNDLING DECISION PROCESS

To determine whether a proposed solicitation would consolidate requirements in such a way that the acquisition strategy team must perform a benefit analysis before issuing it, six criteria must be met. First, the solicitation must consolidate two or more requirements. Second, a small business must have previously performed at least one of the consolidated requirements. Third, it must be true that a small business could have performed any of the requirements. Fourth, the solicitation must result in a single contract.[1] Fifth, the contract must be awarded and performed in the United States. Six, the question of whether the proposed contract is likely to be unsuitable for award to a small business because

- the work is too diverse, large, or specialized;
- the contract has too large an aggregate dollar value;
- the work is too dispersed geographically; or
- any combination of the above factors exists.

If the acquisition strategy team determines that the solicitation consolidates requirements to the degree that the resulting contract would be unsuitable for small-business performance as a result of any combination of the above-described factors, the proposed contract is bundled.

[1] The sole fact that one solicitation results in award of multiple contracts, especially ID/IQ contracts, does not guarantee that the resulting consolidated contracts are not bundled contracts. For example, if an acquisition strategy team is considering issuing a solicitation for multiple-award contracts that are likely to be unsuitable for award to small business, one or more of these contracts may displace small businesses and, therefore, may be a bundled contract. Consequently, when analyzing whether to proceed with a multiple-award contract, the acquisition strategy team should evaluate each multiple-award contract scenario by using the decision flow chart in Figure 1-1 to determine whether one or more of the anticipated awards are being bundled.

AVOIDING AND MITIGATING BUNDLING

Chapter 2 provided best practices for avoiding and mitigating the impact of bundling on small businesses. Planning an acquisition that is likely to result in the consolidation or bundling of requirements, requires careful consideration of how this action might effect small businesses. DoD small business specialists, and the available SBA PCR or Office of Government Contracting Area Office, are important to include in the early stages of the planning process. These small business subject matter experts have in-depth knowledge of acquisition strategies to avoid and mitigate bundling.

BENEFIT ANALYSIS PROCESS

Chapter 3 presented a five-step benefit analysis framework:

- Conducting market research to gather information relevant to the analysis.
- Identifying the benefit categories (e.g., cost savings, quality improvements, cycle-time reductions, and better terms and conditions) into which the anticipated benefits fall.
- Determining the extent of the anticipated benefits to demonstrate that they meet the "measurably substantial benefits" threshold before any solicitation that bundles requirements is issued.
- Notification responsibilities.
- Documenting the results of the benefit analysis.

Chapter 4 described the two basic techniques for quantifying anticipated benefits that may justify the bundling of contract requirements. It also identified possible data sources that can be useful in helping the acquisition strategy team estimate anticipated benefits. Chapters 5 through 9 illustrated how an acquisition strategy team might develop a benefit analysis using this framework.